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REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS FOR THE DEFINI--ETC(U)
MAR 78 L J GRAHAM, A L SIMMONS, B F PAIZ
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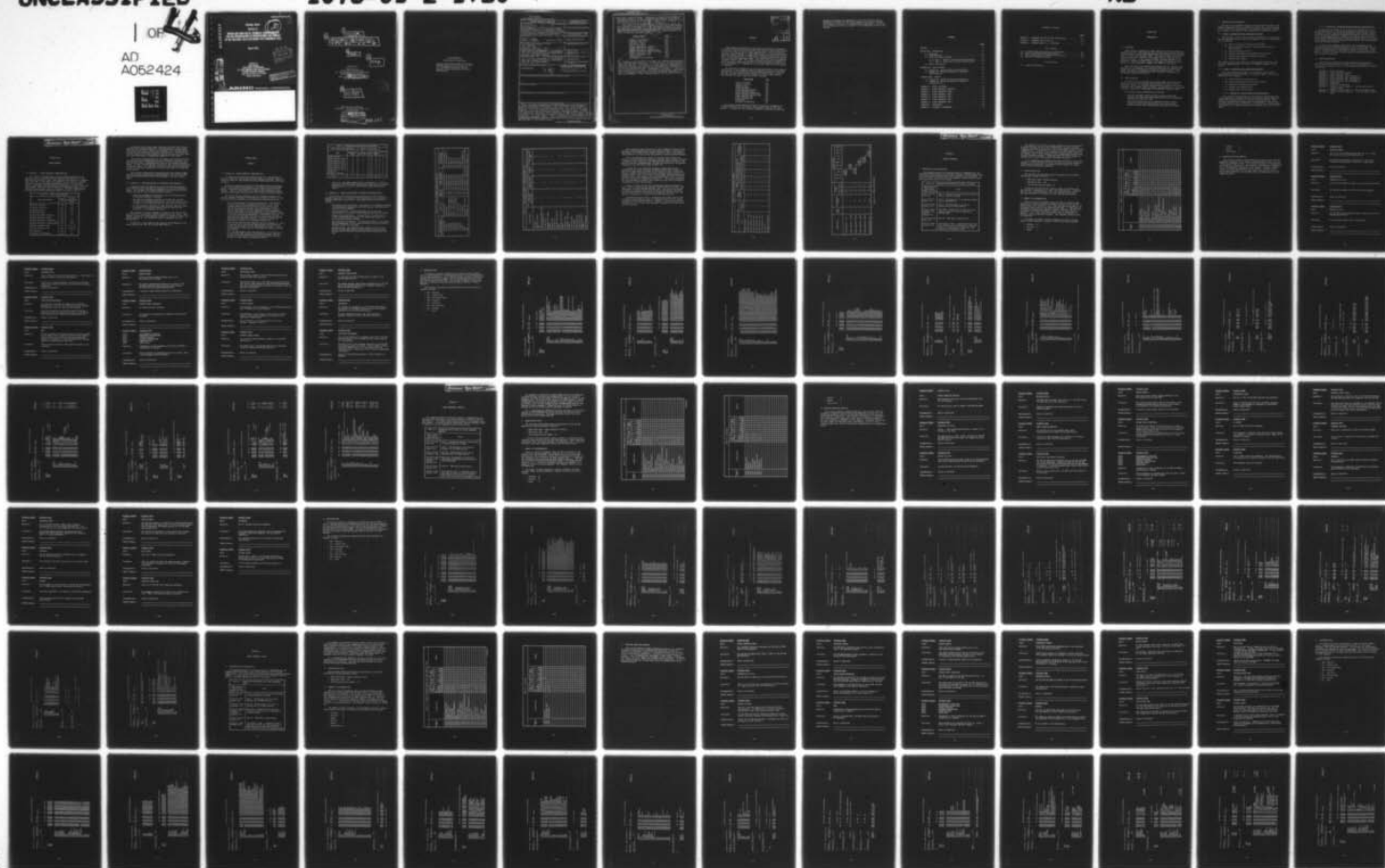
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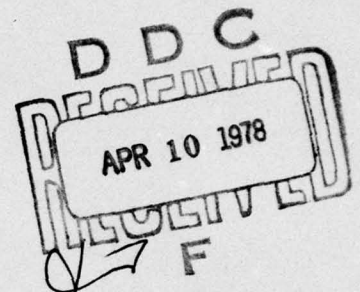
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TECHNICAL REPORT

SUBTASK 2B

REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS
FOR THE DEFINITIZATION OF SPECIFICATIONS FOR FAMILIES
OF OFF-THE-SHELF (OTS) ELECTRONIC TEST EQUIPMENT (ETE)

March 1978



Prepared for
TMDE DIVISION
DIRECTORATE OF MAINTENANCE
U.S. ARMY COMMUNICATIONS AND ELECTRONICS
MATERIEL READINESS COMMAND
under Contract DAEA 18-72-A-0005
Delivery Order BG-02

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SUBTASK 2B

REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS
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Materiel Readiness Command
under Contract DAEA 18-72-A-0005
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by
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two basic contract tasks. This report presents the results of Subtasks 2A and 2B of Task 2; Task 1 was reported on in ARINC Publication Number 1076-01-1-1698, December 1977; Subtasks 2C, 2D, and 2E of Task 2 will be reported on separately.

The objective of Subtask 2A was to encode and compile in four computer printouts all of the documented technical parameters required to describe the technical characteristics of those OTS ETE Specifications, commercial OTS ETE, and Army inventory TMDE included in the Task 2 TMDE families. These families and their codes are listed as follows:

<u>Family Name</u>	<u>Code</u>
Bridge, Universal	008
Capacitor Test Set	011
Impedance Meter	022
Inductance Meter	024
Signal Generator, Function	047
Signal Generator, Pulse	050
Signal Generator, Square Wave	054
Signal Generator, Triangle Wave	057
Signal Generator, UHF	107
Signal Generator, VHF	106
Stroboscope	065
Voltmeter, Differential	121

As a result of the Subtask 2A efforts, the technical parameters for 9 OTS ETE Specifications, 42 OTS ETE, and 214 Army inventory TMDE were encoded. In Subtask 2B, each technical parameter encoded was reviewed and analyzed to determine the completeness of the OTS ETE Specifications. Appendixes A through J of this report document this process, including the rationale, conclusions, and recommendations applicable to each technical parameter, as well as a summary of the recommendations and the data sources.

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ABSTRACT

ARINC Research Corporation is under contract to definitize previously developed Off-the-Shelf (OTS) Electronic Test Equipment (ETE) Specifications by converting them into full Military Specifications. The specifications are then to be used by the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) in competitive evaluation and procurement of OTS ETE to replace appropriate U.S. Army items of general purpose Test, Measurement, and Diagnostic Equipment (TMDE). This seven-month effort encompasses two basic contract tasks. This report presents the results of Subtasks 2A and 2B of Task 2; Task 1 was reported on in ARINC Publication Number 1076-01-1-1698, December 1977; Subtasks 2C, 2D, and 2E of Task 2 will be reported on separately.

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<u>Family Name</u>	<u>Code</u>
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As a result of the Subtask 2A efforts, the technical parameters for 9 OTS ETE Specifications, 42 OTS ETE, and 214 Army inventory TMDE were encoded. In Subtask 2B, each technical parameter encoded was reviewed and

analyzed to determine the completeness of the OTS ETE Specifications. Appendixes A through J of this report document this process, including the rationale, conclusions, and recommendations applicable to each technical parameter, as well as a summary of the recommendations and the data sources.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

ARINC Research Corporation is under contract to provide non-personal services to the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) to definitize specifications for families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE). The contract, DAEA 18-72-A-0005, Delivery Order BG-02, started on 28 September 1977 and continues for a period of 210 days. It was issued as a basic ordering agreement by the Electronic Systems Procurement Branch, Procurement and Production Directorate, U.S. Army Electronics Command, Fort Monmouth, New Jersey.

Data Item A002 of the Contract Data Requirements List (DD Form 1423) provides for the submission of a technical report upon the completion of Subtask 2B, "Review and Analysis of Technical Characteristics". This report, submitted in compliance with that requirement, summarizes the activities of Subtasks 2A and 2B.

1.2 STUDY OBJECTIVE

The objective of the program is to convert ARINC Research OTS ETE Specifications into full Military Specifications that can be used by CERCOM for competitive evaluation and procurement of off-the-shelf (OTS) electronic test equipment (ETE) to replace, as appropriate, U.S. Army items of general purpose Test, Measurement, and Diagnostic Equipment (TMDE).

The specific project objectives are as follows:

- Identify Army TMDE inventory salient features and OTS ETE features, including those which enhance the test and measurement capabilities of the U.S. Army.
- Following identification of all approved features, prepare comprehensive Military Specifications that can be used by CERCOM for competitive evaluation and procurement of OTS ETE.

1.3 OVERVIEW OF WORK PERFORMED

The work to be performed consists of two basic contract tasks. This report describes the results of Subtasks 2A and 2B only. Brief outlines of Task 1 and Task 2 are presented in the following subsections, together with a summary of the specific work accomplished in Subtasks 2A and 2B.

1.3.1 Task 1: Establish Project Data Base Structure

The objective of Task 1 was to design and establish the structure of the data base that would be used in all subsequent tasks. It was divided into six subtasks:

- 1A - Identify Technical Characteristics of TMDE
- 1B - Develop Functional Index of OTS ETE Manufacturers and Their Products
- 1C - Identify TMDE Data Sources
- 1D - Identify TMDE Families That Require Group Analysis
- 1E - Develop Data Formats for Computer Printouts
- 1F - Prepare Task 1 Report

The results of Task 1 were reported in ARINC Research Publication 1076-01-1-1693, dated December 1977, which is a companion document to this report.

1.3.2 Task 2: Definitize and Prepare Specifications

The overall objective of Task 2 is to definitize the OTS ETE Specifications for those TMDE families assigned to Task 2. This task is divided into five subtasks:

- 2A - Encode Technical Characteristics
- 2B - Review and Analyze Technical Characteristics
- 2C - Definitize OTS ETE Specifications
- 2D - Develop Cross-Reference List
- 2E - Prepare Task 2 Final Report

1.3.2.1 Subtask 2A: Encode Technical Characteristics

The technical characteristics of the appropriate OTS ETE Specifications, commercially available OTS ETE, and the Army inventory TMDE were encoded for subsequent display in various computer printouts. These printouts permitted direct comparison of the equipment in terms of the technical characteristics derived from the three sources. The development and purpose of the computer printouts are described in the Task 1 Final Report.

1.3.2.2 Subtask 2B: Review and Analyze Technical Characteristics

The objective of Subtask 2B was to ensure the completeness of the OTS ETE Specifications. This was accomplished by using the data compiled in Subtask 2A and by identifying and documenting those technical characteristics that are available in commercial OTS ETE but were not included in the OTS ETE Specifications. Further, the technical characteristics of Army inventory TMDE were analyzed to determine whether there were technical characteristics that might be required by the Army but were not specified in the OTS ETE Specifications.

A report of the findings, conclusions, and recommendations that resulted from these comparative analysis activities was prepared for each OTS ETE Specification and for TMDE family groups, as applicable. Group analysis of TMDE families is described in Subtask 1D of the Task 1 Final Report. In Task 2, the TMDE in Signal Generator UHF and VHF TMDE families were analyzed collectively.

1.4 REPORT ORGANIZATION

Chapter One has presented the study background and objectives. Chapters Two and Three describe, respectively, the study approach and the results of Subtasks 2A and 2B. Twelve appendixes document the results of the study:

- Appendix A - Bridge, Universal
- Appendix B - Signal Generator, Function
- Appendix C - Signal Generator, Pulse
- Appendix D - Signal Generator, UHF (Instrument A)
- Appendix E - Signal Generator, UHF (Instrument B)
- Appendix F - Signal Generator, VHF (Instrument A)
- Appendix G - Signal Generator, VHF (Instrument B)
- Appendix H - Stroboscope
- Appendix I - Voltmeter, Differential
- Appendix J - Computer Printout Number 8: "OTS ETE Specification Parameter Data"
- Appendix K - Computer Printout Number 9: "OTS ETE Parameter Data"
- Appendix L - Computer Printout Number 10: "U.S. Army TMDE Parameter Data"

CHAPTER TWO

STUDY APPROACH

2.1 SUBTASK 2A: ENCODE TECHNICAL CHARACTERISTICS

The technical characteristics of the OTS ETE Specifications, commercially available OTS ETE, and Army inventory TMDE applicable to the TMDE families included in Task 2 were identified and encoded. A "Parameter Code" (see Task 1 Final Report) was assigned to each technical parameter required to describe the technical characteristics of the item being encoded. Supplemental data describing the parameter in further detail were also encoded. These data were processed for subsequent display in four computer printouts (CP): CPs 7, 8, 9, and 10. The Task 2 TMDE families and applicable OTS ETE specification numbers are shown in Table 2-1.

Table 2-1. TASK 2 TMDE FAMILIES		
TMDE Family Name	Family Code	OTS ETE Specification Number
Bridge, Universal	008	25
Capacitor Test Set	011	N/A
Impedance Meter	022	N/A
Inductance Meter	024	N/A
Signal Generator, Function	047	2
Signal Generator, Pulse	050	4
Signal Generator, Square Wave	054	N/A
Signal Generator, Triangle Wave	057	N/A
Signal Generator, UHF	107	15 to 16
Signal Generator, VHF	106	17 to 18
Stroboscope	065	95
Voltmeter, Differential	121	38

The OTS ETE Specifications were previously developed under Contract DAEA-18-72-005, Delivery Order 0007. The documentation resulting from this contract describes in detail the development of all OTS ETE Specifications and their respective technical characteristics. These documents were the source for all data encoded for the OTS ETE Specifications; they are listed individually in appropriate appendixes to this report.

The technical characteristics for the commercially available OTS ETE were obtained from the ARINC Research files of catalogs, brochures, and specification sheets, representing more than 280 test equipment manufacturers. At least four OTS ETE were selected for each OTS ETE Specification included in Task 2. The items were selected if their technical characteristics were reasonably equivalent to or better than those of the OTS ETE Specifications.

The technical characteristics representing the Army inventory TMDE were encoded from data sources provided by CERCOM. The individual TMDE and their respective data sources are documented in the Task 1 Final Report.

2.2 SUBTASK 2B: REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS

A detailed review and analysis of the data encoded and displayed during Subtask 2A was performed and documented for each OTS ETE Specification. As a minimum, the following questions were resolved during the analysis process for each technical parameter encoded:

- Should the parameter as specified in the OTS ETE Specification be retained, modified, or deleted?
- Are there any parameters available in OTS ETE that should be included in the OTS ETE Specification? Will such inclusion have an impact on the competitive base for this type of instrument?
- Are any parameters specified for Army inventory TMDE that should be included in the OTS ETE Specification but have not been included? Is the parameter necessary?

The comparative analyses performed in Subtask 2B for each OTS ETE Specification are presented in separate appendixes to this report. Each appendix contains the supporting data required for CERCOM to review, and provide comments on, the recommended technical parameters for that specification.

In addition, a group analysis was conducted and documented for the Signal Generator HF, UHF, VHF, and SHF TMDE families.

CHAPTER THREE

RESULTS

3.1 SUBTASK 2A: ENCODE TECHNICAL CHARACTERISTICS

In Subtask 2A the technical characteristics for 9 OTS ETE Specifications, 42 OTS ETE, and 214 Army inventory TMDE were encoded. Table 3-1 shows the number of items encoded for each OTS ETE Specification addressed in Task 2.

During the encoding and analysis of Army TMDE technical parameters, 11 Army inventory TMDE were determined to be assigned to the wrong TMDE family. These TMDE were subsequently moved to their appropriate TMDE families. Table 3-2 identifies the 11 TMDE by Type Designator and Manufacturer's Model Number and shows both the original and new TMDE families.

The encoded data were processed into four computer printouts (CP). The data elements contained in each printout are shown in Table 3-3. The printouts and their locations in this report are described as follows:

- CP-7, Definitization of OTS ETE Specifications. This printout contains the technical parameters encoded for the U.S. Army Inventory TMDE and selected OTS ETE, as well as those of the OTS ETE Specification included in each TMDE family in Task 2. The data are separated by each applicable technical parameter within a TMDE family to permit comparisons of the parameters for subsequent analysis and determination of parameters to be included in the final OTS ETE Specifications. This printout has been separated into nine parts (one part for each of the nine OTS ETE Specifications addressed in Task 2), which are presented in Appendixes A through I as illustrated in Table 3-1.
- CP-8, OTS ETE Specification Parameter Data (see Appendix J). This CP displays all of the encoded identification and technical parameter data applicable to each specification in Task 2. CP-8 is intended as a source for all information on a specific OTS ETE Specification.
- CP-9, OTS ETE Parameter Data (see Appendix K). CP-9 displays all of the encoded identification and technical parameter data applicable to the OTS ETE selected and representative of the ETE industry for TMDE families considered in Task 2.

Table 3-1. ENCODED OTS ETE SPECIFICATIONS AND EQUIPMENTS					
OTS ETE Specification/TMDE Family		Number of Items Encoded			Appendix
Name	Specification Number	OTS ETE Specification	OTS ETE	Army Inventory TMDE	
Bridge, Universal	25	1	5	50	A
Signal Generator, Function	2	1	5	28	B
Signal Generator, Pulse	4	1	5	44	C
Signal Generator, UHF (A)	15	1	5	13	D
Signal Generator, UHF (B)	16	1	5	14	E
Signal Generator, VHF (A)	17	1	5	26	F
Signal Generator, VHF (B)	18	1	4	19	G
Stroboscope	95	1	4	7	H
Voltmeter, Differential	38	1	4	13	I
Total		9	42	214	

- CP-10, U.S. Army TMDE Parameter Data (see Appendix L). This CP displays all of the encoded identification and technical parameter data applicable to the U.S. Army inventory TMDE considered in Task 2.

3.2 SUBTASK 2B: REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS

The results of the detailed review and analysis of each technical parameter applicable to a specific OTS ETE Specification are presented in separate appendixes to this report. Each appendix has five sections as follows:

- Introduction and Instructions. The purpose of the appendix describes the procedure for documenting the review process, with space allocated for CERCOM comments.
- Identification Data. All data applicable to the detailed identification of a specific OTS ETE Specification are presented.
- Summary of Recommendations. The main feature of this section is a table summarizing the results of the review and analysis of each technical parameter encoded.
- Detailed Review and Analysis. The detailed narrative, conclusions, and recommendations of the review and analysis for each technical parameter encoded are presented.
- Supporting Data. The supporting data consist of CP-7 for the specific OTS ETE Specification being considered, which provides the data source from which the detailed review and analyses were made.

Table 3-2. RECORD OF MOVEMENT BETWEEN TMDE FAMILIES

Type Designator/ Manufacturer's Model No.	Nomenclature	TMDE ID Number	Original TMDE Family (Code and Name)	New TMDE Family (Code and Name)
SG-1112(V)1/U	Signal Generator	2072	107 Signal Generator	106 Signal Generator
TS-3178/U	TS Telephone	1227	022 Impedance Meter	122 Dial Equipment TS
TS-330/TSM	Meter, Crystal Impedance	3642	022 Impedance Meter	015 Radio TS
TS-683/TSM	Meter, Crystal Impedance	1076	022 Impedance Meter	015 Radio TS
TS-683A/TSM	Meter, Crystal Impedance	1077	022 Impedance Meter	015 Radio TS
TS-683B/TSM	Meter, Crystal Impedance	1078	022 Impedance Meter	015 Radio TS
TS-710/TSM	TS, Crystal Unit	1087	022 Impedance Meter	015 Radio TS
TS-710A/TSM	TS, Crystal Unit	1088	022 Impedance Meter	015 Radio TS
TS-903/G	TS, Telephone	1117	024 Inductance Meter	122 Dial Equipment TS
831AR	Voltmeter, Differential	3697	121 Voltmeter, Differential	201 Calibration Standard
885A	Voltmeter, DC	1970	121 Voltmeter, Differential	077 Voltmeter, DC

Table 3-3. DATA ELEMENT CONTENT OF COMPUTER PRINTOUTS (CP)					
Data Element	CP-7: Definition of OTS ETE Specifications	CP-8: OTS ETE Specification Parameter Data	CP-9: OTS ETE Parameter Data	CP-10: U.S. Army TMDE Parameter Data	
Accuracy	X	X	X	X	
Associated Family Code				X	
FSCM (Federal Supply Code for Manufacturers)	X	X	X	X	
Group Letter		X	X	X	
Manufacturer's Model Number	X		X	X	
Nomenclature	X	X	X	X	
OTS ETE Price		X	X		
OTS ETE Specification Name		X			
OTS ETE Specification Number	X	X	X	X	
Parameter Code	X	X	X	X	
Parameter (Detailed Data)	X	X	X	X	
Parameter Name	X	X	X	X	
Task Number		X	X	X	
TMDE Family Code	X	X	X	X	
TMDE Family Name	X				
TMDE Identification Number	X	X	X	X	
Type Designator	X				

These appendixes were structured to permit CERCOM to review the data, rationale, and recommendations for each technical parameter considered in the analysis and to make direct comments related to each. This approach should enhance the review process and eliminate possible misunderstandings.

Table 3-4 summarizes the results of this task and indicates the number of technical parameters reviewed, retained, added, deleted, modified, or changed in some manner for each OTS ETE Specification considered. Supporting rationale, recommendations, and data are presented in the appendix indicated in the right-hand column of Table 3-4.

In addition to the individual analyses, a group analysis was performed for all Signal Generator OTS ETE Specifications. Figure 3-1 depicts the TMDE families included in this analysis, their OTS ETE Specification numbers, and the major technical parameter being analyzed, i.e., frequency range. There are a total of eight Signal Generator SHF OTS ETE Specifications; their frequency spectrum extends from 1.8 GHz to 40 GHz, and they are shown as a composite on Figure 3-1. The types of modulation are also indicated to provide a more complete picture of the performance requirements for each specification.

Figure 3-1 shows that the four OTS ETE Specifications addressed in Task 2 cover a frequency range extending from 450 kHz to 2400 MHz. This range spans the entire UHF/VHF frequency band. The figure also depicts an overlap of frequency ranges into the HF and SHF frequency spectrums and shows that there are no frequencies between 450 kHz and 40 GHz that are not covered by one or more of the OTS ETE Specifications.

Consideration may be given to eliminating the Signal Generator VHF Instrument A Specification, since its frequency range is fully covered by Signal Generator VHF Instrument B. However, it should be noted that Instrument B is more costly than instrument A because it includes special avionics features.

Table 3-4. TECHNICAL PARAMETERS REVIEWED								
OTS ETE Specification		Number of Parameters Reviewed	Number of Parameters Retained, Deleted or Modified on the OTS ETE Specification and Number of New Parameters Added					Supporting Data Contained in Appendix
Name	Specification Number		Retained	Added	Deleted	Modified	Other Action	
Bridge, Universal	25	20	17	1	0	2	0	A
Signal Generator, Function	2	26	22	1	0	1	2	B
Signal Generator, Pulse	4	23	15	2	0	3	3	C
Signal Generator, UHF-A	15	34	31	0	0	1	2	D
Signal Generator, UHF-B	16	35	31	2	0	1	1	E
Signal Generator, VHF-A	17	34	33	0	0	0	1	F
Signal Generator, VHF-B	18	35	34	0	0	0	1	G
Stroboscope	95	16	14	0	0	1	1	H
Voltmeter, Differential	38	19	15	0	0	3	1	I

Nomenclature	Task Number	Specification Number	Modulation Mode			Frequency Range																
			AM	FM	PM	0	100 kHz	500 kHz	1 MHz	100 MHz	500 MHz	100 MHz	1 GHz	5 GHz	10 GHz	20 GHz	40 GHz					
Signal Generator, HF		3	X	X				500 kHz - 80 MHz														
Signal Generator, VHF-A	2	17	X	X						10 MHz - 512 MHz												
Signal Generator, VHF-B	2	18	X	X	X			450 kHz - 520 MHz														
Signal Generator, UHF-A	2	15	X	X	X					500 MHz - 1.2 GHz												
Signal Generator, UHF-B	2	16	X	X	X								800 MHz - 2.4 GHz									
Signal Generator, SHF		5-12		X	X												1.8 GHz - 40 GHz					

Figure 3-1. SIGNAL GROUP ANALYSIS

APPENDIX A

BRIDGE, UNIVERSAL

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Bridge, Universal" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table A-1 and other appropriate parts of this report.

Table A-1. SUPPORTING PUBLICATIONS FOR BRIDGE, UNIVERSAL	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-4-1540 October 1976	Task 3: Determination of the Set of Characteristics of TMDE Families
1073-01-7-1553 November 1976 (Revised January 1977)	Task 4/5B: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-13-1583 March 1977	Task 6B: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table A-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis format to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Bridge, Universal":

- TMDE Family Name: Bridge, Universal
- TMDE Family Code: 008
- OTS ETE Specification Number: 25

A review of the publications listed in Table A-1 indicates that the technical characteristics of three other TMDE Families -- Capacitor Test Set (011), Impedance Meter (022), and Inductance Meter (024) -- have been included in the Bridge, Universal OTS ETE Specification.

3. SUMMARY OF RECOMMENDATIONS

Table A-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of Bridge, Universal parameters reviewed, retained, added, deleted, modified, or subject to other action are as follows:

- Reviewed 20
- Retained 17
- Added 1

Table A-2. SUMMARY OF PARAMETER ANALYSIS FOR BRIDGE, UNIVERSAL

Parameter Code	Parameter Name	Parameters Listed			ARINC Research Analysis					CERCOM Comments				Remarks
		OTS ETE Spec	OTS ETE	USA TMDE	Retain	Add	Delete	Modify	Other	Concur	Add	Modify	Delete	
00100	Bridge, Universal	x	x	x	x									
00110	Dimensions in cm/in.	x	x	x	x									
00120	Weight in kg/in.	x	x	x	x									
00130	Enclosure Style	x		x	x									
00140	Power Source/Consumption	x	x	x	x									
00150	MTBF	x			x									
00160	Readout Method			x				x						
00180	Primary Output Connector	x			x									
00200	Environmental Conditions	x			x									
00210	Temperature, Operating/Nonoperating	x			x									
00220	Relative Humidity	x			x									
00230	Altitude, Operating/Nonoperating	x			x									
00240	Vibration Limit	x			x									
00250	Shock Level	x			x									
08400	Capacitance Range	x	x	x	x									
16000	DC Test Voltage			x	x	x								
25410	Internal Signal Source	x	x	x	x									
25420	External Signal Source	x	x	x	x									
36800	Inductance	x	x	x	x									
59600	Resistance Measurement	x	x	x	x			x						

- Deleted 0
- Modify 2
- Other Action 0

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters considered in this analysis and summarized in Table A-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

BRIDGE, UNIVERSAL

Narrative:

Two (2) of the OTS ETE equipment name and one (1) TMDE are common to the OTS ETE Specification.

Conclusion:

The OTS ETE specification identifies the capacitance, inductance and resistance bridge with a common name.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/ins

Narrative:

The OTS ETE and TMDE are common to the OTS ETE Specification.

Conclusion:

The OTS ETE and TMDE are within the stated parameter.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

The OTS ETE and TMDE parameter share a common base with the OTS ETE Specification.

Conclusion:

The established weight limit is reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00130

ENCLOSURE STYLE

Narrative:

One (1) TMDE lists the rack mount capability. These types of TMDE are primarily bench top instruments.

Conclusion:

This is not a normal parameter for this type of general purpose test equipment; however, rack mount kits are easily fabricated.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00140

POWER SOURCE/CONSUMPTION

Narrative:

The majority of OTS ETE are common with the OTS ETE Specification, with two (2) items being battery powered. The TMDE also lists two types of power sources.

Conclusion:

Since the equipment to be procured under the OTS ETE Specification is not intended for field use, the battery power source does not offer any increased capability.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00150

MTBF

Narrative:

OTS ETE and TMDE Source Documents do not indicate the MTBF of the listed items. However, the MTBF for the OTS ETE Specifications was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA-18-72-A-0005, Delivery Order 0007.

Conclusion:

Based on available data, the MTBF specified appears to be reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods used by the ETE industry and the TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A specific readout method should not be specified.

CERCOM Comments:

Parameter Number

Parameter Name

00180

PRIMARY OUTPUT CONNECTORS

Narrative:

No competitive data available.

Conclusion:

The connector type specified is commonly used with this equipment.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ALTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
08400	CAPACITANCE RANGE
Narrative:	The OTS ETE is common to the OTS ETE Specification with extensive TMDE data variations.
Conclusion:	The OTS ETE common base to OTS ETE Specification indicates that there is good competition among OTS ETE manufacturers and that the specification will meet the majority of the U.S. Army test requirements.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
16000	DC TEST VOLTAGE
Narrative:	This parameter is not contained in the OTS ETE Specification. Four (4) TMDE listed this parameter.
Conclusion:	This parameter is not listed in the majority of items; however, this parameter appears to be essential for capacitance leakage tests.
Recommendation:	Add a parameter to the specification for dc test voltage. Recommend 0-500 Vdc.
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
25410	INTERNAL SIGNAL SOURCE
Narrative:	The listed OTS ETE and TMDE are common to the OTS ETE Specification.
Conclusion:	The common base to the OTS ETE Specification indicates competition among OTS ETE manufacturers.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

25420

EXTERNAL SIGNAL SOURCE

Narrative:

The available OTS ETE and TMDE data are common to the OTS ETE Specification.

Conclusion:

The common external signal source comparability of the OTS ETE to the OTS ETE Specification indicates competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

36800

INDUCTANCE

Narrative:

The OTS ETE are comparable to the OTS ETE Specification. The majority of the TMDE listed are within the parameter specified in the OTS ETE Specification.

Conclusion:

The data analyzed indicate that there should be adequate competition between OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

59600

RESISTANCE MEASUREMENT

Narrative:

Only one OTS ETE meets the parameter specified in the OTS ETE Specification, with the TMDE showing a wide variation of this parameter.

Conclusion:

The upper limit of the parameter specified in the OTS ETE Specification should be reduced. This instrument, coupled with other TMDE Families, i.e., multimeter (032) and megohmmeter (029), covers most of the resistance measurement requirements.

Recommendation:

Modify the OTS ETE Specification to read 10 ohms to 10 megohms.

CERCOM Comments:

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7), "Definitization of OTS ETE Specification", for the Bridge, Universal OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 5 OTS ETE, and 50 Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM FAP CODE ID NC. PARAMETER

00100

25

008 9025 BRIDGE UNIVERSAL

PM6302
TF1313A
1683
315A
4260A

77569 008 8006 RCL BRIDGE PM6302
09555 008 8007 UNIVERSAL BRIDGE
24665 008 8033 AUTOMATIC RLC BRIDGE
00000 008 8004 MINI-BRIDGE
28480 008 8008 UNIVERSAL BRIDGE 4260A

AN/URM-90 83777 024 0375 BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE
AN/USM-263 11837 008 0496 BRIDGE, RESISTANCE-VOLTAGE
AN/USM-357 80009 011 0536 METER INDUCTANCE AND CAPACITANCE
DP170 28569 008 1980 BRIDGE RESISTANCE DIGITAL
E1002 07239 008 3267 BRIDGE IMPEDANCE
E3067 07239 008 1982 POTENTIOMETER
E3108 07239 008 1295 BRIDGE RESISTANCE
R-3 56289 011 1300 TEST SET, CAPACITOR, COMPACT
C19-2 19482 008 1562 IMPEDANCE BRIDGE HIGH FREQ
PN-1600 08987 008 2000 RESISTANCE BRIDGE
SP2280 11837 022 3292 IMPEDANCE MEASURING SYSTEM
TO-5 56289 011 1307 BRIDGE, CAPACITANCE
29-2A 80740 011 1314 BRIDGE, IMPEDANCE
ZM-11/U 13259 011 1276 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE
ZM-11A/U 12019 011 1277 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE
ZM-118/U 54294 011 1271 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE
ZM-3/U 77569 011 1272 ANALYZER, CAPACITOR
ZM-3A/U 31922 008 1273 BRIDGE, RESISTANCE
ZM-4/U 66150 008 1274 BRIDGE, RESISTANCE
ZM-4A/U 66150 008 1275 BRIDGE, RESISTANCE
ZM-4B/U 28480 008 1284 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE
ZM-61/U 88869 008 1285 BRIDGE, IMPEDANCE
ZM-68/U 24655 008 3630 BRIDGE, IMPEDANCE
ZM-69 24655 008 3631 BRIDGE, IMPEDANCE
ZM-69A 11837 008 1286 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE
ZM-70/U 28480 008 1287 BRIDGE, IMPEDANCE
ZM-71/U 28009 008 1926 WHEATSTONE BRIDGE
1080 28009 008 1379 WHEATSTONE BRIDGE
1212A 24655 008 1714 DETECTOR, NULL
1604A 24655 008 1474 COMPARATOR, IMPEDANCE
1610-B2 24655 011 1384 CAPACITANCE MEASURING ASSY
1611A 24655 008 1385 BRIDGE, CAPACITANCE
1615AM 24655 011 2370 CAPACITANCE, BRIDGE
1620A 24655 011 2571 CAPACITANCE MEASUREMENT SYSTEM

DEFINITIZATION OF OTS ETE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY -PCT -
OR AS STATED

SPEC OTS ETE NO MFR'S MCL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

00100

1632
16508
2318
250-A
2700
290-A-MQD
315A
427L
4285
4735
5305
5430A
7040
716C
750

24655 024 2572 BRIDGE, INDUCTANCE
24655 008 1475 BRIDGE, IMPEDANCE
11837 008 1333 WHEATSTONE BRIDGE
04901 022 1334 METER RX
09553 008 1487 BRIDGE UNIVERSAL IMPEDANCE
11837 008 3350 IMPEDANCE BRIDGE
11837 008 3592 BRIDGE, IMPEDANCE
31922 008 1405 BRIDGE, RESISTANCE
31922 008 1948 BRIDGE, RESISTANCE
31922 008 1408 BRIDGE, RESISTANCE
31922 008 1414 WHEATSTONE BRIDGE
31922 008 1949 BRIDGE, RESISTANCE
79409 022 1420 TESTER IMPEDANCE GROUNDLOOP
24655 011 1367 BRIDGE CAPACITANCE
04901 011 1369 BRIDGE CAPACITANCE

DIMENSIONS IN CM/INS 00110

25

008 9025 49.5CM/19INHX32.5CM/12.5INHX30CM/11.5IN D

PM6302
TF1313A
1683
315A
4260A

25088 008 8005 13CM(5.1IN)HX25CM(10IN)HX26CM(11IN)D
77569 008 8006 14CM(6IN)HX23CM(9IN)HX28CM(11IN)D
09555 008 8007 30CM(12IN)HX50CM(20IN)HX26CM(10IN)D
24665 008 8003 48CM(19IN)HX20CM(8IN)HX52CM(21IN)D
00000 008 8004 27CM(11IN)HX20CM(8IN)HX 22CM(9IN)D
28480 008 8008 19CM(8IN)HX17CM(7IN)HX28CM(11IN)D

AN/TUM-90
AN/USM-263
AN/USM-357
DP170
E1002
E3067
E3108
M-3
OTB-2
SP2280
TC-5
ZB-2A
ZM-11/U

83777 024 0375 27.5CM(11IN)HX28.75CM(11.5IN)HX22.5CM(10.5IN)D
11837 008 0496 28.7CM(11.3IN)HX 18.3CM(7.2IN)HX 36.8CM(14.5IN)D
80009 011 0536 17.5CM(7IN)HX26.25(10.5IN)HX26.86.87CM(10.75IN)D
28569 008 1980 20.96CM(8.25IN)HX7.62CM(3IN)HX25.40CM(10IN)D
07239 008 3267 30.48CM(12IN)HX17.78CM(7IN)HX48.26CM(19IN)D
07239 008 1982 21.27CM(8.375IN)HX20.32CM(8IN)HX41.91CM(16.5IN)D
07239 011 1300 24.13CM(9.5IN)HX17.78CM(7IN)HX20.32CM(8IN)D
56289 011 1562 15.24CM(6IN)HX13.97CM(5.5IN)HX20.32CM(8IN)D
11837 022 3292 28.58CM(11.25IN)HX53.34CM(21IN)HX48.26CM(19IN)D
19482 008 1307 17.78(7IN)HX22.86(9IN)HX15.88(6.25IN)D
11837 022 3292 28.58CM(11.25IN)HX53.34CM(21IN)HX48.26CM(19IN)D
56289 011 1307 36.20CM(14.25IN)HX21.59CM(8.5IN)HX12.70CM(5IN)D
80760 011 1314 27.31CM(10.75IN)HX24.45CM(9.63IN)HX26.67CM(10.5IN)D
13259 011 1276 22.5CM(9IN)HX16.25CM(6.5IN)HX23.75CM(9.5IN)D

NID

[illegible]

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY -PCT-
CR AS STATED

SPEC QTS ETE
NO MFR'S MDL NO TYPE DESIGNATOR/
MFR'S MODEL NO FSCM CCDE ID NO. PARAMETER

WEIGHT IN KG/LBS 00120

25

008 9025 17KG/37LBS

PM6302
TE1313A
1683
315A
4260A

77569 008 8006 15KG(17LBS)
09555 008 8007 13KG(25LBS)
24665 008 8003 28KG(60LBS)
00000 008 8004 5KG(11LBS)
28480 008 8008 5KG(11LBS)

AN/USM-263
AN/USM-357
DP170
E1002
E3067
E3108
M-3
SP2280
TC-5
ZU-2A
ZM-3/U
ZM-3A/U
ZM-4/U
ZM-4A/U
ZM-4A/U
ZM-4B/U
ZM-61/U
ZM-68/U
ZM-69
ZM-71/U
1212A
1604A
1610-82
1611A
1615A
1620A
1632
1650H
231B
250-A
2730
290-A-MOD
315A

11837 008 0496 8.2KG (18LBS)
80009 011 0536 4.09KG(9LBS)
28569 008 1980 1.59KG(3.5LBS)
07239 008 3267 6.81KG(15LBS)
07239 008 1982 9.08KG(20LBS)
07239 008 1295 2.27KG(5LBS)
56289 011 1300 2.27KG(5LBS)
11837 022 3292 34.28KG(75.5LBS)
56289 011 1307 5.45KG(12LBS)
80740 011 1314 6.92KG(15.25LBS)
54294 011 1271 15.78KG(34.75LBS)
77569 011 1272 12.57KG(27.5LBS)
31922 008 1273 7.04KG(15.50LBS)
31922 008 1273 3.63KG(8LBS)
66150 008 1274 3.63KG(8LBS)
66150 008 1275 3.63KG(8LBS)
66150 008 1275 3.63KG(8LBS)
28480 008 1284 18.16KG(40LBS)
88869 008 1285 11.35KG(25LBS)
24655 008 3630 7.12KG(15LBS)
28480 008 1287 4.99KG(11LBS)
24655 008 1714 2.16KG(4.75LBS)
24655 008 1474 10.22KG(22.50LBS)
24655 011 1384 81.72KG(180LBS)
24655 008 1385 13.85KG(30.5LBS)
24655 011 2570 18.16KG(40LBS)
24655 011 2571 26.79KG(59LBS)
24655 024 2572 18.16KG(40LBS)
24655 008 1475 4.54KG(10LBS)
11837 008 1333 32.23KG(71LBS)
04901 022 1334 18.16KG(40LBS)
09553 008 1487 3.63KG(8LBS)
11837 008 3350 8.4KG(18.5LBS)
11837 008 3592 4.09KG(9LBS)

DEFINITION OF QTS EYE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY - PCT -
CR AS STATED

SPEC QTS EYE NO MFR'S VOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

WEIGHT IN KG/LBS 00120

4271 31922 008 1405 21.79KG(48LBS)
4285 31922 008 1548 9.08KG(20LBS)
4735 31922 008 1408 9.08KG(20LBS)
5305 31922 008 1414 4.54KG(10LBS)
5430A 31922 008 1945 1.82KG(4LBS)
704J 79409 022 1420 4.5KG(1LB)
715C 24655 011 1367 18.39KG(40.5LBS)
750 04901 011 1369 15.89KG(35LBS)

ENCLOSURE (STYLE) 00130

25 008 9025 MIL-T-28000 STYLE E W/RACKMOUNT CAPABILITY

PM6302 77569 008 8006 YES
4260A 28480 008 8008 NO RACK MOUNT CAPABILITY

1604A 24655 008 1474 60HZ,115VAC
1650B 24655 008 1475 RACK MOUNT

PWR SOURCE(S)/CONSUMPTION 00140

25 008 9025 TYPE III 50.60.400HZ SINGLE PHASE 115/230VAC/15WATTS

PM6302 77569 008 8006 48-60HZ S-PHASE 115/230VAC/3.5W
1683 24665 008 8003 50-60HZ, S-PHASE 105-125.20C-250VAC/110W
315A 00030 008 8004 8 C CELL BATTERIES W/POWER PACK OPTION
4260A 28480 008 8006 50.60HZ S-PHASE 115/230VAC/7W

AN/JPM-90 83777 024 0375 50-1000HZ S-PHASE 115VAC
AN/JSM-283 11837 008 0496 FIVE 1.5VOLT C CELLS AND TWO 8.4VOLT MERCURY BATTERIES
AN/JSM-357 80009 011 0536 50-60HZ S-PHASE 115/230VAC/40W
CP170 28569 008 1980 60HZ S-PHASE 115VAC
E3067 07239 008 1982 INTERNAL BATTERY POWERFD
C19-2 19482 008 1562 12.5V BATTERY
SP2280 11837 022 3292 50-400HZ S-PHASE LL7/230VAC/125W

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE
NO MFR'S MDL NO

TYPE DESIGNATOR/
MFR'S MDL NO

FAM CODE ID NO.

PARAMETER

PWR SOURCE(S)/CONSUMPTION 00140

TO-5	56289	011	1307	60HZ S-PHASE 105/125VAC/25W
ZB-2A	80740	011	1314	50-1000HZ S-PHASE 115/230VAC/18W
ZM-11/U	13259	011	1276	50-1000HZ S-PHASE 115VAC/40W
ZM-11B/U	12019	011	1278	50-1000HZ S-PHASE 115VAC/
ZM-3/U	54294	011	1271	50-1000HZ S-PHASE 115/230VAC
ZM-3A/U	77569	011	1272	50-1000HZ S-PHASE 115/230VAC
ZM-4/U	31922	008	1273	3 EACH BA-30 BATTERY
ZM-4/U	31922	008	1273	40-60HZ S-PHASE 210/250VAC/25W
ZM-4A/U	66150	008	1274	VOLTAGE-AC W/3-1.5V BATTERIES
ZM-4A/U	66150	008	1274	3 EACH BA-30 BATTERY
ZM-4B/U	66150	008	1275	3 EACH BA-30 BATTERY
ZM-4B/U	66150	008	1275	VOLTAGE-AC W/3-1.5V BATTERIES
ZM-61/U	28480	008	1284	50-1000HZ S-PHASE 115/230VAC/60W
ZM-69	24655	008	3630	6VDC BATTERY
ZM-69A	24655	008	3631	6VDC BATTERY
ZM-70/U	11837	008	1286	4-1.5VCLT BATTERIES
ZM-71/U	28480	008	1287	50-60HZ S-PHASE 115/230VAC/7W
1212A	24655	008	1714	REQUIRES UNIT PWR SUPPLY
1611A	24655	008	1385	60HZ S-PHASE 115/230VAC/15W
1620A	24655	011	2571	50-400HZ S-PHASE 115/230VAC/22W
1650B	24655	008	1475	4 SIZE-D BATTERY CELLS
2318	11837	008	1333	60HZ S-PHASE 115VAC/1W
250-A	04901	022	1334	50-60HZ S-PHASE 105-125VAC/60W
2700	09553	008	1487	60HZ S-PHASE 110VAC
315A	11837	008	3592	9V DC BATTERY
4271	31922	008	1405	50-60HZ S-PHASE 120VAC/6W
4285	31922	008	1948	BATTERY 1.5V
4735	31922	008	1408	1VDC
5305	31922	008	1414	3 TYPE C BATTERIES
5430A	31922	008	1949	3VDC
7040	79409	022	1420	50-60HZ S-PHASE 115VAC

00141

AN/USM-263 11837 008 0496 BATTERY LIFE APPROXIMATELY 2000 PWR CONSUMPTION 30 MW

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY - PCT -
CR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE TO NC. PARAMETER

MTBF SPECIFIED/PREDICTED 00150

008 9025 3500 HRS

25

READOUT METHOD(S) 00160

AN/JUSM-263	11837	008	0496	ANALOG METER VIA SELECTION SWITCH
E1002	07239	008	3267	GALVANCETER
E3067	07239	008	1982	METER VIA CIAL
E3108	07239	008	1295	METER VIA CIAL
PN-1600	08987	008	2000	SCALE
SP2280	11837	022	3292	DIAL
TO-5	56289	011	1307	METER
ZB-2A	80740	011	1314	DIALS
ZM-11A/U	54294	011	1277	METER VIA CIAL
ZM-3/U	77569	011	1271	METER
ZM-3A/U	31922	008	1272	METER
ZM-4/U	31922	008	1273	METER
ZM-4A/U	66150	008	1274	METER VIA CIAL
ZM-4A/U	66150	008	1274	GALVANCETER VIA RHEOSTAT AND MULTIPLIER SWITCHES
ZM-48/U	66150	008	1275	GALVANCETER VIA RHEOSTAT AND MULTIPLIER SWITCHES
ZM-61/U	28480	008	1284	METER VIA CIAL
ZM-69A	24655	008	3631	METER
ZM-70/U	11837	008	1286	METER
ZM-71/U	28480	008	1287	METER
1050	28009	008	1926	METER VIA CIAL
1080	28009	008	1379	DIAL
1212A	24655	008	1714	METER
1604A	24655	008	1474	DIAL
1610-82	24655	011	1384	DIAL
1611A	24655	008	1385	DIAL VIA SWITCHES
1615AM	24655	011	2570	DIGITAL READOUT VIA CIALS
1620A	24655	011	2571	DIGITAL CIAL
1632	24655	024	2572	DIAL
16508	24655	008	1475	METER VIA CIAL
2318	11837	008	1333	MEYERS
2500-A	04901	022	1334	METER VIA CIAL
2700	09553	008	1487	METER VIA CIAL
290-A-MOD	11837	008	3350	DIAL
315A	11837	008	3592	DIAL
4271	31922	008	1405	METER
4285	31922	008	1948	METER
4735	31922	008	1408	DIALS

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

READOUT METHOD(S) 0016C

31922 008 1414 METER ANC DIAL
31922 008 1949 METER
04901 011 1369 METER VIA DIAL

PRIMARY OUTPUT CONNECTOR(00180

008 9025 DUAL FEMALE BANANA JACK

ENVIRONMENTAL CONDITIONS 00200

008 9025 MIL-T-28800B TYPE III CLASS S STYLE E COLOR R

31922 008 1273 IAW MIL-T-945
66150 008 1274 IAW MIL-T-945
66150 008 1275 IAW MIL-T-945

TEMP OPER/NON-OPERATING 00210

008 9025 0 TO 50 C / -55 TO 75 C

83777 024 0375 IAW MIL-STD 883C METHOD 502
11837 008 0496 +40F TC +140F (+5C TO +60C)/-35F TO +160F (-37C TC +70C)
54294 011 1271 -4 TO 125F /-65 TO 160F
77569 011 1272 -4 TO 125F /-65 TO 160F

AN/URM-90
AN/USM-263
ZM-3/U
ZM-3A/U

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MDL NO FSCM CCDE ID NO. PARAMETER

ACCURACY -PCT-
OR AS STATED

RELATIVE HUMIDITY 00220

25 008 9025 95

ALTITUDE OPER/NDON-OPER 00230

25 008 9025 305CM(10000FT)/12000M(40000FT)

AN/URN-90 83777 024 0375 1AW MIL-STD-810

VIBRATION LIMIT (MAXIMUM) 00240

25 008 9025 26

31922 008 1273 SHALL BE TESTED 1AW MIL-T-945
66150 008 1274 SHALL BE TESTED 1AW MIL-T-945
66150 008 1275 SHALL BE TESTED 1AW MIL-T-945

SHOCK, PULSE LEVEL 00250

25 008 9025 306

31922 008 1273 SHOCK AND BOUNCE TEST QRD SEE MIL-8-30678
66150 008 1274 SHOCK AND BOUNCE TEST QRD SEE MIL-8-30678
66150 008 1275 SHOCK AND BOUNCE TEST QRD SEE MIL-8-30678

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CCDE ID NO. PARAMETER

DC TEST VOLTAGE 16000

011 1277 0-500VDC
011 1278 0-500VDC
54294 011 1271 0 TO 600VDC LEAKAGE
77569 011 1272 0 TO 600VDC LEAKAGE

INTERNAL SIGNAL SOURCE 25410

+/-3 PCT

008 9025 SIGNAL SOURCE 1KHZ

PM6302
TF1313A
1683
315A
4260A

77569 008 8006 100 & 1KHZ
09555 008 8007 1KHZ & 10KHZ
24665 009 8003 1KHZ
00000 008 8004 1KHZ
28480 008 8008 1KHZ

13259 011 1276 1KHZ INTERNAL CSC
28480 008 1284 .5 TC 250MHZ
24655 008 3631 1KHZ
11837 008 1286 INTERNAL GENERATOR AC AND DC
28480 008 1287 1KHZ INT
24655 011 1384 20HZ TC 500KHZ
24655 011 2571 AUDIO CSC
24655 008 1475 1KHZ INTERNAL CSC

EXTERNAL SIGNAL SOURCE 25420

008 9025 SIGNAL SOURCE VARIABLE FROM 50HZ TO 20KHZ

TF1313A
1683
315A
4260A

09555 008 8007 20-20KHZ EXT
24665 008 8003 PROGRAMMABLE OPTIONS
00000 008 8004 20-20KHZ
28480 008 8008 20-20KHZ EXT

28480 008 1287 20-20KHZ EXT
24655 024 2572 100HZ TO 100KHZ

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - BRIDGE UNIVERSAL

ACCURACY -PCT-
CR AS STATED

SPEC OTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

EXTERNAL SIGNAL SOURCE 25420

24655 008 1475 EXTERNAL FREQ CAPABILITY

INDUCTANCE 36800

25 008 9025 1 UH TO 1100 HENRYS IN NMT 8 RANGES +/-0.1 PCT

PM6302 77569 008 8006 1UH TO 1000H +/-2 PCT
 TF1313A 09555 008 8007 1UH TO 110H +/-0.1 PCT
 1683 24665 008 8003 001UH TO 200H +/-1 PCT
 315A 00000 008 8004 0-1200 H +/-1 PCT
 42604 28480 008 8008 1000UH TC 1000H IN 7 RANGES +/-1 PCT

83777 024 0375 1UH TC 1100H +/-0.15 PCT
 AN/JRM-90 80009 011 0536 0 TO 300UH +/-0.1 PCT
 AN/USM-357 11837 022 3252 0 TO 1400H +/-0.1 PCT
 SP2280 80740 011 1314 NOT LISTED +/-1 PCT
 ZB-2A 13259 011 1276 01MP TC 100H +/-1 PCT
 ZM-11/U 12019 011 1277 100UH TC 100H +/-1 PCT
 ZM-11A/U 28480 008 1284 001UH TC 100H IN 8 RANGES +/-1 PCT
 ZM-11B/U 24655 008 3630 1UH TO 100CH IN 7 RANGES +/-1 PCT
 ZM-69 24655 008 3631 1UH TO 1100H IN 7 RANGES +/-1 PCT
 ZM-69A 11837 008 1286 0 TO 1200H +/-0.1 PCT
 ZM-70/U 28480 008 1287 1UH TO 100CH IN 7 RANGES +/-1 PCT
 ZM-71/U 24655 024 2512 100P TO 1111H +/-1 PCT
 1632 24655 008 1475 1UH TO 110CH +/-1 PCT
 18503 11837 008 3350 0 TO 1200H +/-0.1 PCT
 Z9J-1-MOD

RESISTANCE MEASUREMENT 59600

25 008 9025 10 OHMS TO 12 MEGOHMS IN NMT 8 RANGES +/-0.1 PCT

PM6302 77569 008 8006 100MH TO 10MEGCHMS +/-2 PCT
 TF1313A 09555 008 8007 0030HMS TC 110MEGCHMS +/-0.1 PCT
 1683 24665 008 8003 001PILLICM TC 2MEGCHMS +/-1 PCT
 315A 00000 008 8004 0-12 MEGCHM +/-0.25 PCT

APPENDIX B

SIGNAL GENERATOR, FUNCTION

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Signal Generator, Function" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table B-1 and other appropriate parts of this report.

Table B-1. SUPPORTING PUBLICATIONS FOR SIGNAL GENERATOR, FUNCTION	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-3-1534 September 1976	Task 3A: Determination of the Set of Characteristics of TMDE Families
1073-01-6-1554R November 1976 (Revised January 1977)	Task 4/5A: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-11-1571 January 1977	Task 6A: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table B-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Signal Generator, Function":

- TMDE Family Name: Signal Generator, Function
- TMDE Family Code: 047
- OTS ETE Specification Number: 02

A review of the publications listed in Table B-1 indicates that the technical characteristics of two other TMDE Families -- Signal Generator, Square Wave (054); and Signal Generator, Triangle Wave (057) -- have been included in the Signal Generator, Function OTS ETE Specification.

3. SUMMARY OF RECOMMENDATIONS

Table B-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of Signal Generator, Function parameters reviewed, retained, added, deleted, modified, or subject to other action are as follows:

- Reviewed 28
- Retained 25
- Added 0

Table B-2. SUMMARY OF PARAMETER ANALYSIS FOR SIGNAL GENERATOR, FUNCTION

Parameter Code	Parameter Name	Parameters Listed				ARINC Research Analysis				CERCOM Comments				Remarks
		OTS ETE Spec	OTS ETE	USA TMDL	Retain	Add	Delete	Modify	Other	Concur	Add	Modify	Delete	
00100	Signal Generator, Function	x	x	x	x									
00110	Dimensions in cm/in.	x	x	x	x									
00120	Weight in kg/lb.	x	x	x	x									
00130	Enclosure Style	x	x	x	x									
00140	Power Source/Consumption	x	x	x	x									
00150	MTBF	x												
00160	Readout Method(s)			x					x					
00170	Primary Input Connectors			x	x									
00200	Environmental Conditions	x			x									
00210	Temperature, Operating/Nonoperating	x			x									
00220	Relative Humidity	x			x									
00230	Altitude, Operating/Nonoperating	x			x									
00240	Vibration Limit	x			x									
00250	Shock Level	x			x									
03600	Attenuation Output	x	x		x									
15600	DC Offset	x	x		x									
19200	Distortion	x			x									
25400	Frequency Output Range	x	x		x									
26800	Frequency Response	x			x									
29000	Harmonics	x	x		x									

(continued)

[illegible]

- Deleted 0
- Modify 0
- Other Action 3

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters considered in this analysis and summarized in Table B-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

SIGNAL GENERATOR,FUNCTION

Narrative:

This parameter describes the given manufacturer name for the equipment.

Conclusion:

The specification name is common to OTS ETE and TMDE.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/ins

Narrative:

The prescribed OTS ETE Specification is common to the OTS ETE and the TMDE.

Conclusion:

The differences in width, height, and depth of OTS ETE and TMDE are nominal and allow for competition among OTS ETE vendors.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

The OTS ETE are within nominal range of the specifications, while 25% of TMDE exceeds the specification parameters.

Conclusion:

The OTS ETE meets the specification parameters.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00130

ENCLOSURE STYLE

Narrative:

Available data indicates that only one (1) OTS ETE and two (2) TMDE have rack mount capability.

Conclusion:

Experience indicates rack mount conversion kit can be readily produced.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00140

POWER SOURCE/CONSUMPTION

Narrative:

The OTS ETE and 75% of the TMDE power source characteristics are common to the specification.

Conclusion:

OTS ETE and TMDE parameters are compatible and indicate competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00150

MTBF (Mean Time Between Failures)

Narrative:

OTS ETE and TMDE source documents do not indicate the MTBF for listed equipments. However, the MTBF for the OTS ETE Specification was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA 18-22-A-005, Delivery Order 0007.

Conclusion:

Based on the available data, the MTBF specified appears to be reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter NumberParameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods employed by the ETE industry and the Army TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A specific readout method should not be specified.

CERCOM Comments:Parameter NumberParameter Name

00170

PRIMARY INPUT CONNECTORS

Narrative:

An equal mix of banana and BNC connectors is evident among the TMDE. There is no data available for OTS ETE; however, most should be able to install a BNC connector without major modifications.

Conclusion:

Strict implementation of specification should not inhibit OTS ETE manufacturer competition to meet U. S. Army requirements.

Recommendation:

Retain as Specified

CERCOM Comments:Parameter NumberParameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ATTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

03600

ATTENUATION OUTPUT

Narrative:

One (1) of five (5) OTS ETE indicated this parameter.

Conclusion:

There is insufficient data for a conclusive analysis. However, this parameter is essential in controlling output signal levels.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

15600

DC OFFSET

Narrative:

One (1) TMDE listed this parameter.

Conclusion:

This parameter is essential when off-center signal outputs are required. It should be retained but may impact on the competition process.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

19200

DISTORTION

Narrative:

One (1) TMDE listed this parameter. The characteristics of distortion are a function of signal level and sensitivity.

Conclusion:

This parameter should be retained.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

25400

FREQUENCY OUTPUT RANGE

Narrative:

The OTS ETE are compatible with the OTS ETE Specification. The TMDE generally have less capability than the OTS ETE.

Conclusion:

The competition factor is favorable for the OTS ETE, and the frequency range generally provides greater capability than existing Army TMDE. Most of the requirements for the TMDE are contained between 0 and 1 MHz; thus the OTS ETE provide overall frequency and function enhancement.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26800

FREQUENCY RESPONSE

Narrative:

There were no parameters listed for OTS ETE and TMDE.

Conclusion:

This function is important for sensitivity alignment and testing.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

29000

HARMONICS

Narrative:

Two (2) OTS ETE and no TMDE indicate harmonic parameter characteristics.

Conclusion:

This parameter is essential in determining the stability and sensitivity of the instrument.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

35200

IMPEDANCE OUTPUT

Narrative:

All the OTS ETE indicate common output impedance characteristics with the OTS ETE Specification. Six (6) of fourteen (14) listed TMDE meet this specification.

Conclusion:

The OTS ETE common parameter characteristics offer maximum OTS ETE manufacturer competition and generally meet U. S. Army requirements.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

39500

LINEARITY

Narrative:

Two (2) OTS ETE listed this parameter and are common to the OTS ETE Specification.

Conclusion:

This parameter describes the quality of the signal output.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

41600

MARKERS

Narrative:

This parameter is not specified in the OTS ETE Specification. Two (2) TMDE items provide this distinct function.

Conclusion:

The marker parameter is not common to the function generators.

Recommendation:

This parameter should not be included in the OTS ETE Specification.

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
50000	OUTPUT SIGNALS
Narrative:	This OTS ETE parameter is common to the OTS ETE Specification. The TMDE has a 50% common base to the OTS ETE Specification with the additional 50% having some but not all the wave forms capabilities.
Conclusion:	The OTS ETE are comparable to the specification, whereas the majority of TMDE have less functional capability.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
56010	PULSE WIDTH
Narrative:	Only one (1) TMDE listed this parameter.
Conclusion:	There is insufficient data for proper analysis. However, this parameter is essential for critical PM equipment alignments.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
56430	PULSE MOD TRANS TIME
Narrative:	Only one (1) OTS ETE item listed this parameter.
Conclusion:	PM equipment requires this parameter for alignment and test. There is insufficient data for analyses.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

80800

TRIGGERING

Narrative:

Two (2) OTS ETE listed this parameter.

Conclusion:

The listed triggering capability offers enhancement for equipment having this parameter but may restrict competition.

Recommendation:

This parameter should not be included in the OTS ETE Specification.

CERCOM Comments:

Parameter Number

Parameter Name

85600

VOLTAGE OUTPUT

Narrative:

The OTS ETE is common to the OTS ETE Specification. Approximately 50% of the listed TMDE items are common to the OTS ETE Specifications.

Conclusion:

10V P/P appears adequate and provides competition.

Recommendation:

Retain as Specified

CERCOM Comments:

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7), "Definitization of OTS ETE Specification", for the Signal Generator, Function OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 5 OTS ETE, and 27 Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF OTS LFE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

SPEC OTS ETE
NO WFR'S MDL NO

TYPE DESIGNATOR/
WFR'S MODEL NO

FSC#

FAM CODE TO NC.

PARAMETER

ACCURACY -PCT-
OR AS STATED

00100

02

FG502
142
2000
3312A
7030

047 9002 SIGNAL GENERATOR FUNCTION

80009 047 8011 SIGNAL GENERATOR FUNCTION
23338 047 8013 SIGNAL GENERATOR FUNCTION
88865 047 8015 SIGNAL GENERATOR FUNCTION
28480 047 8014 SIGNAL GENERATOR FUNCTION
21793 047 8012 SIGNAL GENERATOR FUNCTION

AN/USM-108
4V/USM-108B
AN/USM-256
AN/USM-358
F51A
F55A
IG-115
PL-1178/U
SG-106/U
SG-298/U
SG-298A/U
SG-299/U
SG-299B/U
SG-321/U
SG-321B/U
SG-747
SG-769/U
SG-772/G
TS-583/U
TS-583A/U
104 TYPE 2
107
116 VCC
141J
185A
3310A
504A

28569 047 0440 SIGNAL GENERATOR FUNCTION
28569 047 0441 SIGNAL GENERATOR SQUARE WAVE
72314 054 0491 SIGNAL GENERATOR SQUARE WAVE
80009 054 0537 SIGNAL GENERATOR SQUARE WAVE
07421 047 1932 SIGNAL GENERATOR FUNCTION
07421 047 1812 SIGNAL GENERATOR FUNCTION
05782 047 1908 SIGNAL GENERATOR FUNCTION
28480 047 0791 SIGNAL GENERATOR SQUARE WAVE
80009 054 0838 SIGNAL GENERATOR FUNCTION
00775 047 0839 SIGNAL GENERATOR FUNCTION
21764 047 0840 SIGNAL GENERATOR SQUARE WAVE
28569 054 0841 SIGNAL GENERATOR SQUARE WAVE
28569 054 0842 SIGNAL GENERATOR SQUARE WAVE
83563 047 0844 SIGNAL GENERATOR FUNCTION
24635 047 0846 SIGNAL GENERATOR FUNCTION
28480 047 0872 SIGNAL GENERATOR FUNCTION
23339 047 0875 SIGNAL GENERATOR SQUARE WAVE
80009 054 0877 SIGNAL GENERATOR SQUARE WAVE
28480 054 3636 SIGNAL GENERATOR SQUARE WAVE
35225 054 3637 SIGNAL GENERATOR SQUARE WAVE
80009 054 3340 SIGNAL GENERATOR SQUARE WAVE
80009 054 1884 SIGNAL GENERATOR SQUARE WAVE
23338 047 1887 SIGNAL GENERATOR FUNCTION
65092 047 1657 SIGNAL GENERATOR FUNCTION
30669 054 1896 SIGNAL GENERATOR SQUARE WAVE AND ELECTRONIC SWITCH
28480 047 1842 SIGNAL GENERATOR FUNCTION
10597 047 1862 SIGNAL GENERATOR FUNCTION

DEFINITION OF DTS FTE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

SPEC DTS ETC NO MER'S MOL NO TYPE DESIGNATOR/ MER'S MODEL NO FSC CODE TO NC. PARAMETER

ACCURACY -PCT-
OR AS STATED

DIMENSIONS IN CM/INS 00110

02

047 9002 44CM(163/4)INHX16CM(6IN)HX40CM(15IN)D

142
2003
3312A

2338 047 8013 22CM(9IN)HX13CM(5IN)HX29CM(12IN)D
88865 047 8015 22CM(9IN)HX13CM(5IN)HX29CM(12IN)D
28480 047 8014 10CM(4IN)HX21CM(9IN)HX38(15IN)D
28569 047 0840 25.40CM(10IN)HX42.48CM(16.725IN)HX34.93CM(13.75IN)D
28569 047 0841 25.40CM(10IN)HX42.48CM(16.725IN)HX34.93CM(13.75IN)D
72314 054 0841 20.32CM(8IN)HX27.94CM(11IN)HX12.70CM(5IN)D
80009 054 0537 22.86(9IN)HX15CM(6IN)HX37.47CM(14.75IN)D
07421 047 1902 21.59CM(8.5IN)HX13.34CM(5.25IN)HX31.12CM(12.25IN)D
07421 047 1812 42.55CM(16.75IN)HX13.19CM(5.198IN)HX30.83CM(12.125IN)D
03742 047 1908 15.24CM(6IN)HX18.73CM(7.375IN)HX10.16CM(4IN)D
28480 047 0791 15.40CM(6.063IN)HX12.07CM(4.75IN)HX26.04CM(10.25IN)D
80009 054 0838 41.91CM(16.5IN)HX35.56CM(14IN)HX25.46CM(10IN)D
08775 047 0839 36.83CM(14.5IN)HX19.05CM(7.5IN)HX44.45CM(17.5IN)D
21734 047 0840 35.24CM(13.89IN)HX24.77CM(9.75IN)HX35.24CM(13.88IN)D
28569 054 0842 35.24CM(13.89IN)HX24.77CM(9.75IN)HX35.24CM(13.88IN)D
83563 047 0844 35.625CM(14.250IN)HX30.625CM(12.500IN)HX51.45CM(20IN)D
28480 047 0872 27.94CM(11IN)HX13.34CM(5.25IN)HX42.55CM(16.75IN)D
23338 047 0875 13.34CM(5.25IN)HX19.05CM(7.5IN)HX19.05CM(7.5IN)D
80009 054 0877 26.67CM(10.5IN)HX35.56CM(14IN)HX48.26CM(19IN)D
35225 054 3637 36CM(15IN)HX16.8CM(7IN)HX21.41(9IN)D
80009 054 3340 22.86CM(9IN)HX37.47CM(14.75IN)HX15.24CM(6IN)D
116 VCC 137 1884 17.15CM(6.75IN)HX26.67CM(10.5IN)HX27.94CM(11IN)D
1410 047 1887 27.94CM(11IN)HX13.37CM(5.5IN)HX30.48CM(12IN)D
1454 047 1657 48.26CM(19IN)HX17.78CM(7IN)HX65.72CM(26IN)D
30659 054 1836 13.73CM(7.38IN)HX29.21CM(11.5IN)HX33.02CM(13IN)D
28480 047 3345 32.34CM(12.75IN)HX38.10CM(15IN)HX52.71CM(20.75IN)D
28480 047 1842 19.69CM(7.75IN)HX11.43CM(4.5IN)HX20.32CM(8IN)D
10537 047 1862 43.18CM(17IN)HX8.89CM(3.5IN)HX34.29CM(13.5IN)D

WEIGHT IN KG/LBS 00120

02

047 9002 9KG(20LBS)

142
2003

2338 047 8013 3.6KG(8LBS)
88865 047 8015 5KG(11LBS)

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

ACCURACY - PCT -
OR AS STATED

SPEC QTS ETE NO MER'S MPL NO TYPE DESIGNATOR/ MER'S MODEL NO FSCN CODE ID NO. PARAMETER

WEIGHT IN KG/LBS 00120

3312A

28480	047	8014	4KG(9LBS)
28569	047	0440	13.73KG(30.25LBS)
28569	047	0441	13.73KG(30.25LBS)
72314	054	0491	3.41KG(7.5LBS)
80009	054	0537	7.26KG(16LBS)
07421	047	1902	5.90KG(13LBS)
07421	047	1812	8.63KG(19LBS)
03782	047	1908	2.72KG(6LBS)
28480	047	0791	1.82KG(4LBS)
80009	054	0838	15.49KG(35LBS)
06775	047	0839	9.53KG(21LBS)
21764	047	0840	9.53KG(21LBS)
28569	054	0841	13.62KG(30LBS)
28569	054	0842	13.62KG(30LBS)
28480	047	0872	9.04KG(20LBS)
23338	047	0875	3.18KG(7LBS)
80009	054	0877	6.36KG(14LBS)
28480	054	3636	15.94KG(35LBS)
80009	054	3340	8.17KG(18LBS)
90009	054	1884	2.72KG(6LBS)
23338	047	1887	4.54KG(10LBS)
65092	047	1657	17.25KG(38LBS)
30669	054	1896	7.72KG(17LBS)
28480	047	3345	19.07KG(42LBS)
28480	047	1842	2.72KG(6LBS)
10597	047	1862	5.90KG(13LBS)

ENCLOSURE (STYLE) 00130

02

047 9002 MIL-T-28800B STYLE E W/RACK MOUNT CAPABILITY

2000

88855 047 8015 RACK MOUNT CAPABILITY

PL-1178/U	28480	047	0791	PLUG-IN UNIT
SG-298/U	08775	047	0839	BENCH MOUNTED
SG-299/U	28569	054	0841	BENCH MOUNT
SG-321/U	83563	047	0844	CABINET MOUNTED
SG-747	28480	047	0872	BENCH MOUNTED

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MER'S MOL NO TYPE DESIGNATOR/ MER'S MODEL NO FSCW CODE IO NC. PARAMETER FAM TYPE

ENCLOSURE (STYLE) 00130

23338 047 0875 BENCH MOUNTED
80029 054 0877 PACK MOUNTED
28480 047 3345 CABINET OR RACK MOUNT

PWR SOURCE(S)/CONSUMPTION 00140

02

TYPE III 50,60, 400HZ SINGLE PHASE 115/230VAC/50W

142
2000

50-400HZ S-PHASE 105-125/200-250VAC/31W
50-400HZ S-PHASE 105-125/210-250VAC/50W

AN/USM-108 28569 047 0840 50-400 HZ S-PHASE 115/230VAC/240W
AN/USM-108B 28569 047 0841 50-60 HZ S-PHASE 115/230VAC/ 240W
AN/USM-256 72314 054 0491 50-400HZ S-PHASE 105/125VAC/20W
AN/USM-358 80009 054 0537 50-60HZ S-PHASE 103/253VAC/85W
F51A 07421 047 1302 50-400HZ S-PHASE 115/230VAC 35W
F53A 07421 047 1812 50-400HZ S-PHASE 115-230VAC 50W
IC-115 03782 047 1908 60 HZ S-PHASE 115VAC
SG-106/U 80009 054 0838 50-60HZ S-PHASE 125/250VAC/250W
SG-298/U 08775 047 0839 50-1000 HZ S-PHASE 115/230VAC
SG-298A/U 21764 047 0840 50-1000 HZ S-PHASE 115/230VAC
SG-299/U 28569 054 0841 50-60HZ S-PHASE 115/230VAC/210W
SG-299B/U 28569 054 0842 50-60HZ S-PHASE 115/230VAC/210W
SG-321/U 83563 047 0844 50-400HZ S-PHASE 115/230VAC
SG-747 28480 047 0872 50-400 HZ S-PHASE 115/230VAC
SG-769/U 23338 047 0875 50-400 HZ S-PHASE 115/230VAC 10W
SG-772/G 80009 054 0877 50-60HZ S-PHASE 105/125VAC/250W
TS-584A/U 35225 054 3637 50-60HZ S-PHASE 115VAC/100W
106 TYPE 2 80009 054 3340 50-60HZ S-PHASE 151/230VAC/85W
107 80009 054 1884 50-60HZ S-PHASE 105/125VAC/100W
116 VCC 23338 047 1887 60HZ S-PHASE 115VAC
1410 65092 047 1657 50-400HZ S-PHASE 115-230VAC 120W
202A 28480 047 3345 50-400HZ S-PHASE 115VAC 150W
3310A 28480 047 1842 50-400 HZ S-PHASE 115/230VAC 20W
504B 10597 047 1862 50-400 HZ S-PHASE 115-230VAC 12W

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

SPEC OTS ETE NO MFR'S MDL NO	TYPE DESIGNATOR/ MFR'S MDL NO	FSCM	CCDE ID NO.	FAM	TMDE	ACCURACY -PCT- OR AS STATED
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NTBF SPECIFIED/PREDICTED 00150

02

047 9022 2500 HRS

READOUT METHOD(S) 00160

AN/USN-108	28569	047	0440	METFP VIA PUSH-BUTTON SWITCHES
AN/USN-256	72314	054	0491	DIAL
AN/USN-358	80009	054	0537	DIAL
F51A	07421	047	1902	ANALOG DIAL
PL-1178/U	07421	047	1812	DIAL SWITCHES
SG-106/U	28480	047	0791	DIAL
SG-298/U	80009	054	0838	METER
SG-298A/U	08775	047	0839	DIAL
SG-299/U	21764	047	0840	DIAL
SG-299B/U	28569	054	0841	DIAL
SG-747	28480	047	0872	DIAL
SG-769/U	23338	047	0875	DIAL
SG-772/G	80009	054	0877	DIALS
106 TYPE 2	80009	054	3340	METFP
107	80009	054	1884	COT
116 VCC	23338	047	1887	DIAL
1410	65092	047	1657	DIGITAL
202A	28480	047	3345	DIAL
3310A	28480	047	1842	DIAL
5048	10597	047	1862	DIAL

PRIMARY INPUT CONNECTOR(S) 00170

02

047 9022 BNC

AN/USN-108	28569	047	0440	CABLES VIA BANANA JACKS
AN/USN-108B	28569	047 <td>0441</td> <td>CABLES VIA BANANA JACKS</td>	0441	CABLES VIA BANANA JACKS
F55A	07421	047	1812	BNC CABLE
PL-1178/U	28480	047	0791	PLUGS IN SG-747/U
1410	65092	047	1657	CABLES VIA BANANA JACKS
202A	28480	047	3345	CABLES VIA BANANA JACKS
5048	10597	047	1862	CABLES

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

ACCURACY - PCT -
OR AS STATED

SPEC QTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER FAM TWDE

ENVIRONMENTAL CONDITIONS 00200

02 047 9002 MIL-T-28800 TYPE III CLASS 5 STYLE E COLOR R

SG-769/U 23339 047 0875 25C=5C

TEMP OPER/NON-OPERATING 00210

02 047 9002 0 TO 50C/-55 TO 75C

SG-298/U 08775 047 0839 +131F-(-14F/+160F-(-180F
SG-321/U 93563 047 0844 MIL-G-55447A

RELATIVE HUMIDITY 00220

02 047 9002 95(+5-0)

SG-298/U 08775 047 0839 97-1001
SG-321/U 93563 047 0844 MIL-STD-810

ALTITUDE OPER/NON-OPER 00230

02 047 9002 3050M(10000FT)/12100M(40000FT)

SG-298/U 08775 047 0839 L7E010,000 FT ASL/L7E050,000 FT ASL
SG-321/U 93563 047 0844 MIL-STD-810

DEFINITION OF DTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

ACCURACY -PCT-
OR AS STATED

SPEC DTS ETE NO	TYPE DESIGNATOR/ MFR'S MDL NO	FSC MFR'S MODEL NO	FAM CCOF ID NO	TWDE PARAMETER
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VIBRATION LIMIT (MAXIMUM) 00240

02	SG-321/U	83563	047 0844	MIL-STD-810
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SHOCK, PULSE LEVEL 00250

02	SG-321/U	83563	047 0844	MIL-STD-810
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ATTENUATION-OUTPUT 03600

02	33124	28480	047 8014	NLT 10 TC CONTINUOUS CONTROL
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SG-299/U	28569	054 0841	60DB ATTENUATOR VARIABLE IN 200B STEPS
SG-2998/U	28569	054 0842	60DB ATTENUATOR VARIABLE IN 200B STEPS
TS-583/U	28480	054 3636	70DB ATTENUATOR IN 5CB STEPS

DC OFFSET 15600

02	F51A	07421	047 1902	ADJUSTABLE FROM -10V TO +10V
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DEFINITION OF ITS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

SPEC OTS ETE NO 4FR'S HOL NO TYPE DESIGNATOR/ FSCM CODE ID NO. PARAMETER FAW TPOE ACCURACY -PCT- OR AS STATED

DISTORTION 19200

02 047 9002 DISTORTION NOT .5 PCT

202A 28480 047 3345 DISTORTION LEVEL LT +/-1 PCT

FREQUENCY OUTPUT RANGE 25400

02 047 9002 .1HZ TO 10MHZ IN 10 RANGES +/-5 PCT

F6502 80009 047 8011 .1HZ TO 11MHZ IN 10 RANGES +/-5 PCT
 142 23338 047 8013 .005HZ TO 10MHZ IN 8 RANGES +/-2 PCT
 2000 88865 047 8015 .003HZ TO 30MHZ IN 8 RANGES +/-2 PCT
 3312A 28480 047 8014 .1HZ TO 13MHZ
 7030 21793 047 8012 .0004 TC 11MHZ

AN/USM-108 50MHZ, 10MHZ, 5MHZ SINEWAVE

AN/USM-108 28569 047 0440 50MHZ TO 10MHZ IN 5 RANGES
 AN/USM-256 72314 054 0491 7HZ TO 10MHZ IN 10 RANGES
 AN/USM-358 80009 054 0537 10MHZ TO 1MHZ IN 5 RANGES
 F51A 07421 047 1902 0 TO 11MHZ IN 10 RANGES
 F55A 07421 047 1812 0 TO 11MHZ
 1G-115 03782 047 1908 14KHZ TO 1GHZ
 PL-1178/U 28480 047 0791 10MHZ TO 100KHZ IN 9 RANGES
 SG-1067/U 80009 054 0838 25MHZ TO 1MHZ IN 6 RANGES
 SG-2987/U 08775 047 0839 .008HZ TO 2KHZ IN 10 BANDS
 SG-2988/U 21764 047 0840 .008 TO 1200HZ IN 5 BANDS
 SG-2997/U 28569 054 0841 1HZ TO 1MHZ
 SG-2998/U 28569 054 0842 1HZ TO 1MHZ
 SG-3217/U 83563 047 0844 .008 TC 1200HZ
 SG-3218/U 24635 047 0846 .008 TC 1.2KH
 SG-747 28480 047 0872 .01HZ TO 100KHZ IN 10 RANGES
 SG-769/U 23338 047 0875 .015HZ TO 1MHZ IN 9 RANGES
 SG-77276 80009 054 0877 20MHZ TO 20KHZ
 TS-5837/U 28480 054 3636 20MHZ TO 10KHZ
 TS-5838/U 35225 054 3637 10MHZ TO 10MHZ
 106 TYPE 2 80009 054 1894 400KHZ TO 1MHZ
 107 80009 054 1887 0 TO 200KHZ
 116 WCC 23338 047 1887 0 TO 10KHZ
 1410 65092 047 1657 .001 TC 10KHZ
 202A 28480 047 3345 .008 TC 1200HZ
 5048 10597 047 1862 100KHZ TO 1MHZ

DEFINITION OF ITS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

ACCURACY - PCT-
OR AS STATED

SPEC QTS ETE TYPE DESIGNATOR/ FAM TME
NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

FREQUENCY OUTPUT RANGE 25400

FREQ RESPONSE 26800

02 047 9002 VARIATION OF OUT PUT LEVEL BETWEEN BANDS NGT +/-108

HARMONICS 29000

02 047 9002 SINE WAVE NLT 30CP BELOW FUNDAMENTAL FREQ

88865 047 8015 22DB BELOW FREQ
28480 047 8014 GT 30DB

IMPEDANCE OUTPUT 35200

02 047 9002 50 OHMS IMPEDANCE OUTPUT

142 23338 047 8013 50 OHMS
2000 88865 047 8015 50 OHMS
3312A 28480 047 8014 50 OHMS
7030 21793 047 8012 50 OHMS

AN/USM-256 72314 054 0491 50 CP 600 OHMS SELECTABLE

AN/USM-358 80009 054 0537 50 OHMS
F51A 07421 047 1902 50 OHMS
IG-115 03782 047 1908 50 OHMS
SG-298/U 08775 047 0839 4000 OHMS
SG-298A/U 21764 047 0840 40 OHMS
SG-299/U 28569 054 0841 75 & 600 OHMS
SG-299B/U 28569 054 0842 75 AND 600 OHMS
SG-321/U 83563 047 0844 4000 OHMS
SG-321B/U 24635 047 0846 40 OHMS
SG-747 28480 047 0872 600 OHMS
SG-769/U 23338 047 0875 50 AND 600 OHMS
SG-772/G 80009 054 0877 50 OHMS
TS-583/U 28480 054 3536 500 CP 1000 OHMS

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

SPEC OTS ETE NO MFR'S MOL NO	TYPE DESIGNATION/ MFR'S MODEL NO	FAM CODE	TMDF ID AC	PARAMETER	ACCURACY -PCT- OR AS STATED
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IMPEDANCE-OUTPUT 35200

TS-583A/U	35225	054	3637	1000 OHMS	
106 TYPE 2	80039	054	3340	50 OHMS	
107	80009	054	1884	50 OHMS	

LINEARITY 39500

02	047	9002	SAWTOOTH & TRIANGLE WAVE LINEARITY ERROR AT 100MHZ	LT 1	PCT
142	23338	047	8013	LT .0005	
3312A	28480	047	8014		+/- .5 PCT

MARKERS 41600

AN/USM-108	28569	047	0440	100KHZ, 10KHZ, 1KHZ, 10HZ, 1MHZ	
AN/USM-108B	28569	047	0441	1.5, 10, 50, 100, 500USEC, 1, 10, 50, 100, 500MIL SEC, 1, 5SEC	

OUTPUT SIGNALS 50000

02	047	9002	SELECT WAVEFORMS SINE, SQUARE, PULSE, TRIANGLE & SAWTOOTH
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FG502	80009	047	8011	SINE, SQUARE, TRIANGLE, PULSE AND SAWTOOTH
142	23338	047	8013	SINE, SQUARE, TRIANGLE, PULSE AND SAWTOOTH WAVE FORMS
2000	88865	047	8015	SINE, SQUARE, TRIANGLE, RAMPS, PULSES
3312A	28480	047	8014	SAWTOOTH, SQUARE, SINE, TRIANGLE AND PULSE

AN/USM-108	28569	047	0440	SINEWAVE AND PULSE MARKERS
AN/USM-256	72314	054	0431	SQUARE WAVE AND TRIGGER PULSES
AN/USM-358	80009	054	0537	SQUARE WAVE POS OR NEG
F51A	07421	047	1902	SINE, SQUARE, TRIANGLE AND RAMP WAVE FORMS
F55A	07421	047	1812	SINE, SQUARE, TRIANGLE AND RAMP WAVE FORMS TO 5MHZ
PL-1178/U	28480	047	0791	OFF SET SINE AND PULSE
SG-298/U	08175	047	0839	SINE, SQUARE, TRIANGLE
SG-298A/U	21764	047	0840	SINE, SQUARE, TRIANGULAR

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

ACCURACY - POT -
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

OUTPUT SIGNALS 50000

SG-299/U	28559	054	0841	SQUARE WAVE
SG-2998/U	28560	054	0842	SQUARE WAVE
SG-321/U	63563	047	0844	SIN, TRIANGLE, SQUARE WAVES
SG-321a/U	24635	047	0846	SIN, TRIANGLE, SQUARE WAVE
SG-747	29480	047	0872	SIN, SQUARE, TRIANGLE
SG-769/U	23338	047	0875	SIN, TRIANGLE, SQUARE WAVE
SG-772/G	80009	054	0877	SQUARE WAVE
TK-583/U	26480	054	3636	SQUARE WAVE
TK-583A/U	35225	054	3637	SQUARE WAVE
LOG TYPE 2	80039	054	3340	SQUARE WAVE PPS & NEG
1410	80039	054	1894	SQUARE WAVE
2023	65042	047	1657	SIN, SQUARE, SUPPRESSED CARRIER
33104	29480	047	3345	SIN, SQUARE, TRIANGLE
5048	26480	047	1842	SIN, SQUARE, PULSE, RAMP WAVEFORMS
	10597	047	1862	SIN, SQUARE, TRIANGLE, PULSE

PULSE WIDTH 50010

02 047 9002 ALT. PLUS TO 5 SEC

100 80039 054 1894 30INSEC

PULSE MOD, TRANS TIME 56430

02 047 9002 PULSE TRANS TIME LT 21 NANOSEC

142 23338 047 8013 20 NANOSEC

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR FUNCTION

ACCURACY - PCT -
OR AS STATED

PARAMETER

FAM TIME
CODE ID NC.

TYPE DESIGNATION/
MFR'S MODEL NO

SPEC QTS ETE
NO MFR'S MDL NO

TRIGGERING

80800

15933 050 8018 TRIGGERING CAPABILITY 500M 0-50MHZ
26483 050 8017 TRIGGERING CAPABILITY

1105
3021

VOLTAGE OUTPUT 85.00

+/-108

02

047 9092 10V P/P AT 50 OHM LOAD

142
2000
3312A

23338 047 8013 4V P/P AT 50 OHM LOAD
88865 047 8015 30V P/P AT 50 OHM LOAD
28480 047 8014 10V P/P AT 50 OHM LOAD

AN/USM-108 28569 047 0440 3V ACROSS 52 OHM LOAD
AN/USM-108R 28559 047 0441 1V (MARKER) 3V (SINEWAVE) SWITCH TOGGLE PULSE AT 50 OHMS
AN/USM-256 72314 054 0491 3V AT 50 OHMS & 20V AT 600 OHMS
AN/USM-358 80009 054 0537 2.5 TO 50V ACROSS 50 OHM LOAD
F554 07421 047 1812 15V P/P
SG-106/U 80009 054 0838 0 TC 100V ACROSS 600 OHM LOAD
SG-298/U 06775 047 0839 30V P/P
SG-299/U 28569 054 0841 0 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS
SG-299/U 28569 054 0841 0 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS
SG-321/U 83563 047 0844 30V P/P ACROSS 4000 OHM LOAD
SG-747 28480 047 0872 35V P/P
SG-769/U 23338 047 0875 5V P/P ACROSS 50 OHM LOAD
SG-772/G 80009 054 0877 0-15V ACROSS 50 OHM LOAD
TS-583/U 28480 054 3636 50V P/P
TS-583A/U 35225 054 3637 60V P/P
106 TYPE 2 80009 054 3340 5 TC 12V
107 80009 054 1884 1 TC 5V
2021 28480 047 3345 30V P/P ACROSS 4K OHM LOAD
3310A 28480 047 1842 0 TC 4608

+/-

APPENDIX C

SIGNAL GENERATOR, PULSE

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Signal Generator, Pulse" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table C-1 and other appropriate parts of this report.

Table C-1. SUPPORTING PUBLICATIONS FOR SIGNAL GENERATOR, PULSE	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-3-1534 September 1976	Task 3A: Determination of the Set of Characteristics of TMDE Families
1073-01-6-1554R November 1976 (Revised January 1977)	Task 4/5A: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-11-1571 January 1977	Task 6A: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table C-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Signal Generator, Pulse":

- TMDE Family Name: Signal Generator, Pulse
- TMDE Family Code: 050
- OTS ETE Specification Number: 04

3. SUMMARY OF RECOMMENDATIONS

Table C-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of Signal Generator, Pulse parameters reviewed, retained, added, deleted, modified, or subjected to other action are as follows:

- Reviewed 23
- Retained 16
- Added 2
- Deleted 0
- Modify 3
- Other Action 2

Table C-2. SUMMARY OF PARAMETER ANALYSIS FOR SIGNAL GENERATOR, PULSE																
Parameter Code	Parameter Name	Param-eters Listed			ARINC Research Analysis						CERCOM Comments			Remarks		
		OTS ETE Spec	OTS ETE	USA TMDE	Retain	Add	Delete	Modify	Other	Concur	Add	Modify	Delete			
00100	Signal Generator, Pulse	x	x	x	x											
00110	Dimensions in cm/in.	x	x	x	x											
00120	Weight in kg/lb.	x	x	x			x									
00130	Enclosure Style	x	x	x	x											
00140	Power Source/Consumption	x	x	x	x											
00150	MTBF	x			x											
00160	Readout Method								x							
00170	Primary Input Connectors	x			x											
00200	Environmental Conditions	x			x											
00210	Temperature, Operating/Nonoperating	x	x	x	x											
00220	Relative Humidity	x			x											
00230	Altitude, Operating/Nonoperating	x			x											
00240	Vibration Limit	x														
00250	Shock Level	x			x											
03600	Attenuation Output						x									
35200	Impedance Output	x	x	x	x											
41600	Markers									x						
50000	Output Signals	x			x											
56010	Pulse Width	x	x	x					x							
56430	Pulse Transient Time	x	x	x	x											

(continued)

[illegible]

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters considered in this analysis and summarized in Table C-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

SIGNAL GENERATOR,PULSE

Narrative:

This parameter adequately describes the OTS ETE and TMDE name for the equipment.

Conclusion:

The OTS ETE and TMDE family name is common to the OTS ETE Specification.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/ins

Narrative:

The OTS ETE are compatible with the OTS ETE Specification.

Conclusion:

Based on the OTS ETE data, the parameter specified provides for competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

There is a variance between the OTS ETE and OTS ETE Specification. The TMDE, however, greatly exceeds the specification norm, signifying large bulky items.

Conclusion:

The OTS ETE Specification should be modified to greater weight, which will enhance OTS ETE manufacturer competition.

Recommendation:

Modify the OTS ETE Specification. Recommend the weight be increased to 10 kg (25 lbs.).

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
00130	ENCLOSURE (STYLE)
Narrative:	The OTS ETE is compatible with the rack mount requirements. Most of the TMDE are portable.
Conclusion:	The OTS ETE Enclosure (style) promotes a competitive base among OTS ETE manufacturers.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
00140	POWER SOURCE/CONSUMPTION
Narrative:	The OTS ETE and about half of the TMDE are common to the OTS ETE Specification. The power consumption varies above and below the OTS ETE Specification, especially for the TMDE.
Conclusion:	This parameter is not met by all of the OTS ETE; however, there appears to be adequate competition.
Recommendation:	Retain as specified; however, it may be necessary to modify this parameter to increase competition.
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
00150	MTBF
Narrative:	Information on these parameters for OTS ETE and TMDE is insufficient to analyze.
Conclusion:	Based on available data, the MTBF specified appears to be reasonable.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter NumberParameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods used by the ETE industry and the TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A specific readout method should not be specified.

CERCOM Comments:

Parameter NumberParameter Name

00170

PRIMARY INPUT CONNECTORS

Narrative:

The TMDE is common to the OTS ETE Specification. No data is available for OTS ETE.

Conclusion:

The common base of the TMDE to the OTS ETE Specification indicates this parameter is common for the equipment type, and modification of the OTS ETE to meet connector requirements should be no problem.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter NumberParameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ALTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III, Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number Parameter Name

03600 ATTENUATION OUTPUT

Narrative: Three TMDE listed this parameter, which is not specified in the OTS ETE Specification.

Conclusion: Signal level control is a significant factor; therefore, this parameter should be included in the OTS ETE Specification.

Recommendation: Add the parameter "Attenuation Output" to the OTS ETE Specification, with 0-90 dB in 10 dB steps and 10 dB vernier calibrated in 1 dB steps.

CERCOM Comments: _____

Parameter Number Parameter Name

35200 IMPEDANCE OUTPUT

Narrative: The OTS ETE and TMDE are common to the OTS ETE Specification.

Conclusion: The common base of the OTS ETE promotes competition among manufacturers.

Recommendation: Retain as Specified

CERCOM Comments: _____

Parameter Number Parameter Name

41600 MARKERS

Narrative: Only two (2) TMDE items indicated this characteristic, and both appear to be for a specific application.

Conclusion: The number of items not having this characteristic indicate this parameter is not significant for this equipment type.

Recommendation: Do not include in the specification.

CERCOM Comments: _____

Parameter Number Parameter Name

50000 OUTPUT SIGNALS

Narrative: The TMDE document source data indicates some TMDE items contain additional wave forms: Sawtooth, Square Wave, and Sine.

Conclusion: The sawtooth, square, and sine wave forms are comparable to the Signal Generator, Function.

Recommendations: Retain as Specified

CERCOM Comments: _____

Parameter Number Parameter Name

56010 PULSE WIDTH

Narrative: Only one (1) of five (5) OTS ETE and one (1) of nineteen (19) TMDE reached the maximum/1 sec. pulse duration as per OTS ETE Specification.

Conclusion: Comparison analysis indicates pulse width parameter exceeds requirements and would inhibit competition among OTS ETE manufacturers.

Recommendation: Modify OTS ETE to read "variable from 10 nsec to 5 milliseconds".

CERCOM Comments: _____

Parameter Number Parameter Name

56430 PULSE TRANS TIME

Narrative: The OTS ETE parameters are common to the OTS ETE Specification, with the TMDE having a wide variation either above or below the prescribed specification.

Conclusion: The common base of OTS ETE to OTS ETE Specification provides for a competitive base for OTS ETE manufacturers.

Recommendation: Retain as Specified

CERCOM Comments: _____

Parameter Number Parameter Name

56600

PULSE RATE

Narrative: 80% of the OTS ETE are compatible with the OTS ETE Specification. However, the upper limit can be increased to 50 MHz without inhibiting competition. It also provides a better fit for the TMDE.

Conclusion: The OTS ETE parameters will compare favorably with a modified OTS ETE Specification and will provide a basic match for the Army TMDE.

Recommendation: Modify the OTS ETE Specification. Recommend the upper limit be changed to 50 MHz.

CERCOM Comments: _____

Parameter Number Parameter Name

74400

SYNCHRONIZATION MODE

Narrative: There was no OTS ETE Specification established for this parameter. The TMDE source documents revealed this parameter as a functional technical characteristic.

Conclusion: This parameter is significant in internal and external sync modes of operation of the pulse generator.

Recommendation: Add as an OTS ETE Specification with internal and external synchronization by pulse mode.

CERCOM Comments: _____

Parameter Number Parameter Name

85600

VOLTAGE OUTPUT

Narrative: The OTS ETE parameters are compatible with the OTS ETE Specifications. The TMDE vary item by item, most of which are considerably higher than the specification. Further, many of the TMDE are listed more than once.

Conclusion: It appears that a second Signal Generator, Pulse, in addition to the low voltage one specified, with at least a 200V output, may be required.

Recommendation: Retain as Specified. CERCOM should perform additional analysis to determine the requirement for a high voltage pulse generator.

CERCOM Comments: _____

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7), "Definitization of OTS ETE Specification", for the Signal Generator, Pulse OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 5 OTS ETE, and 45 U.S. Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. FAM TMDE

PARAMETER

00100

2138 28480 050 1850 SIGNAL GENERATOR PULSE
214A 28480 050 3348 SIGNAL GENERATOR PULSE
216A 28480 050 1851 SIGNAL GENERATOR PULSE
218AR 28480 050 1852 GENERATOR DIGITAL DELAY
222A 28480 050 1853 SIGNAL GENERATOR PULSE
2901 80009 050 1840 GENERATOR TIME MARK
3450D 92110 050 1844 SIGNAL GENERATOR PULSE
50708 80138 050 2376 SIGNAL GENERATOR PULSE
6254-5 13222 050 1848 SIGNAL GENERATOR PULSE
80058 28480 050 1849 SIGNAL GENERATOR PULSE

DIMENSIONS IN CM/INS 00110

04

44CM(17IN)HX18CM(61/2IN)HX36CM(131/2IN)D

PG508
P22
1103
302A

80009 050 8016 15CM(6IN)HX22CM(9IN)HX39CM(15IN)D
07421 050 8020 43CM(17IN)HX9CM(4IN)HX34CM(14IN)D
15933 050 8018 43CM(17IN)HX13CM(5IN)HX35CM(14IN)D
26483 050 8017 19CM(8IN)HX11CM(4IN)HX23CM(8IN)D

AN/GPM-15 82076 050 0159 31.12CM(12.25IN)HX23.50CM(9.25IN)HX17.78CM(7IN)D
AN/GPM-15A 82076 050 0160 31.12CM(12.25IN)HX23.50CM(9.25IN)HX17.78CM(7IN)D
AN/PPM-1 28480 050 0239 26.67CM(10.5IN)HX36.83CM(14.5IN)HX48.26CM(19IN)D
AN/UPM-15 98179 050 0316 50.17CM(19.75IN)HX40.01CM(15.75IN)HX58.42CM(23IN)D
AN/UPM-15A 15196 050 0317 50.17CM(19.75IN)HX40.01CM(15.75IN)HX58.42CM(23IN)D
AN/USM-255 72314 050 0490 21.59CM(8.5IN)HX29.21CM(11.5IN)HX13.34CM(5.25IN)D
AN/USM-271 80009 050 0500 22.86CM(9IN)HX37.47CM(14.75IN)HX15.24CM(6IN)D
AN/USM-359 80009 050 3617 22.86CM(9IN)HX15.24CM(6IN)HX45.40CM(17.875IN)
AN/USM-374 80009 050 0541 16.04CM(6.313IN)HX28.74CM(11.313IN)HX29.05CM(11.438IN)W
B78 06692 050 3251 49.53CM(19.5IN)HX33.02CM(13IN)HX22.23CM(8.75IN)D
K7006 28480 050 3273 17.78CM(7IN)HX48.26CM(19IN)HX15.24CM(6IN)D
MP-1 04590 050 1912 15.24CM(6IN)HX20.96CM(8.25IN)HX20.32CM(8IN)D
PG-32 24141 050 1914 43.18CM(17IN)HX38.10CM(15IN)HX8.89CM(3.5IN)D
RCD 20006 23405 050 3287 48.26CM(19IN)HX40.64CM(16IN)HX7.62CM(3IN)D
SG-1105/U 28480 050 2067 14.22CM(5.6IN)HX3.02CM(1.3IN)HX20.07CM(7.9IN)D
SG-343/UPM-15A 15196 050 0850 27.94CM(11IN)HX35.56CM(14IN)HX48.26CM(19IN)D
SG-366/U 80138 050 0851 38.74CM(15.25IN)HX49.53CM(19.5IN)HX24.45CM(9.625IN)D
SG-366A/U 80138 050 0852 49.53CM(19.5IN)HX20.32CM(8IN)HX34.29CM(13.5IN)D
SG-475/APS-94 06344 050 0855 38.10CM(15IN)HX48.26CM(19IN)HX13.34CM(5.25IN)D
SG-638/UPM-10 36004 050 0827 43.94CM(17.3IN)HX21.34CM(8.4IN)HX8.89CM(3.5IN)D

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

SPEC QTS EYE NO	QTS EYE NO	TYPE DESIGNATOR/ MFR'S MODEL NO	FSCM	FAM CODE	TIME ID NO.	PARAMETER
DIMENSIONS IN CM/INS 00110						
		SG-69/PPM	28480	050	0818	52.71CM(20.75IN)HX32.39CM(12.75IN)HX36.04CM(14.188IN)D
		SG-69A/PPM-1	28480	050	0830	52.71CM(20.75IN)HX32.39CM(12.75IN)HX36.04CM(14.188IN)D
		SG-69B/PPM-1	28480	050	0831	52.71CM(20.75IN)HX32.39CM(12.75IN)HX36.04CM(14.188IN)D
		TG-501	80009	050	1795	6.60CM(2.6IN)HX12.70CM(5IN)HX30.99CM(12.2IN)D
		TS-592/UPM-15		050	1058	37.15CM(14.625IN)HX30.16CM(11.875IN)HX51.60CM(20.313IN)D
		TS-592A/UPM-15	88585	050	1059	37.15CM(14.625IN)HX30.16CM(11.875IN)HX51.60CM(20.313IN)D
		101	15933	050	1883	27.94CM(11IN)HX8.89CM(3.5IN)HX21.59CM(8.5IN)D
		1013	82199	050	1874	38.10CM(15IN)HX20.32CM(8IN)HX48.26CM(19IN)D
		109	80009	054	1885	12.70CM(5IN)HX20.32CM(8IN)HX30.48CM(12IN)D
		1105A	28480	050	2562	13.34CM(5.25IN)HX5.38CM(2.12IN)HX17.53CM(6.9IN)D
		1217C	24655	050	1830	14.61CM(5.75IN)HX15.88CM(6.25IN)HX50.80CM(20IN)D
		132A	13488	050	1889	48.26CM(19IN)HX27.94CM(11IN)HX17.78CM(7IN)D
		1398	13488	050	1890	43.18CM(17IN)HX15.24CM(6IN)HX30.48CM(12IN)D
		1920A	28480	050	1838	20.32CM(8IN)HX10.16CM(4IN)HX18.42CM(7.25IN)D
		2135	28480	050	1850	13.02CM(5.125IN)HX12.70CM(5IN)HX3.81CM(1.5IN)D
		214A	28480	050	3348	42.55CM(16.75IN)HX17.62CM(6.938IN)HX46.67CM(18.375IN)D
		216A	28480	050	1851	42.55CM(16.75IN)HX46.67CM(18.375IN)HX13.97CM(5.5IN)D
		218AR	28480	050	1852	48.26CM(19IN)HX35.25CM(12.75IN)HX35.56CM(14IN)D
		222A	28480	050	1853	13.97CM(5.5IN)HX34.29CM(13.5IN)HX42.55CM(16.75IN)D
		2901	80009	050	1840	20.32CM(8IN)HX10.16CM(4IN)HX
		3450D	92110	050	1844	24.21CM(11.5IN)HX40.64CM(16IN)HX50.80CM(20IN)D
		5070B	80138	050	2576	48.26CM(19IN)HX33.02CM(13IN)HX22.56CM(9IN)D
		6254-5	13222	050	1848	21.59CM(8.5IN)HX22.86CM(9IN)HX37.15CM(14.625IN)D
		80358	28480	050	1849	42.55CM(16.75IN)HX13.97CM(5.5IN)HX33.66CM(13.25IN)D

WEIGHT IN KG/LBS 00120

04	050	9004	7KG(15.5LBS)
P22	07421	050	8020
1108	15933	050	8018
302A	28483	050	8017
			7.2KG(16LBS)
			10KG(22LBS)
			3KG(7LBS)
	82076	050	0159
	82076	050	0160
	28480	050	0239
	98179	050	0316
	15196	050	0317
	72314	050	0490
	80009	050	0500
			7.72KG(17LBS)
			7.72KG(17LBS)
			21.79KG(48LBS)
			56.75KG(125LBS)
			56.75KG(125LBS)
			4.54KG(10LBS)
			5.90KG(13LBS)

DEFINITIZATION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

FAM TMCE
CODE ID NC. PARAMETER

SPEC OTS ETE
NO MFR'S MDL NO

TYPE DESIGNATOR/
MFR'S MODEL NO

FSCM

WEIGHT IN KG/LBS 00120

AN/USM-359 80009 050 3617 6.825KG(15LBS)
AN/USM-374 80009 050 0541 4.09KG(9LBS)
B7B 06692 050 3251 25.42KG(56LBS)
K7006 28480 050 3273 6.81KG(15LBS)
MP-1 04596 050 1912 3.18KG(7LBS)
PG-32 24141 050 1914 13.62KG(30LBS)
RCD 20006 23405 050 3287 13.62KG(30LBS)
SG-1105/U 28480 050 2067 4.09KG(9LBS)
SG-343/UPM-15A 15196 050 0850 22.70KG(50LBS)
SG-366/U 80138 050 0851 13.62KG(30LBS)
SG-475/APS-94 06344 050 0855 8.17KG(18LBS)
SG-638/UPM-10 36004 050 0827 5.45KG(12LBS)
SG-69/PPM 28480 050 0818 25.42KG(56LBS)
SG-69A/PPM-1 28480 050 0830 25.42KG(56LBS)
SG-69B/PPM-1 28480 050 0831 25.42KG(56LBS)
TG-501 80009 050 1795 1.36KG(3LBS)
TS-592A/UPM-15 88585 050 1059 36.4KG(80LBS)
101 15933 050 1883 3.63KG(8LBS)
109 80009 054 1885 3.63KG(8LBS)
1105A 28480 050 2562 1.82KG(4LBS)
1217C 24655 050 1830 7.04KG(15.5LBS)
132A 13488 050 1889 9.99KG(22LBS)
1398 13488 050 1890 9.08KG(20LBS)
1920A 28480 050 1838 1.82KG(4LBS)
2138 28480 050 1850 9.1KG(2LBS)
214A 28480 050 3348 15.89KG(35LBS)
216A 28480 050 1851 11.35KG(25LBS)
218AR 28480 050 1852 33.60KG(74LBS)
222A 28480 050 1853 8.17KG(18LBS)
2901 80009 050 1840 4.09KG(9LBS)
3450D 92110 050 1844 37.68KG(83LBS)
80U58 28480 050 1849 7.26KG(16LBS)

ENCLOSURE (STYLE) 00130

04 050 9004 MIL-T-28800 STYLE W/RACK MOUNT CAPABILITY

PG508 80009 050 8016 RACK MOUNT CAPABILITY
p22 07421 050 8020 RACK MOUNT CAPABILITY
1108 15933 050 8018 RACK MOUNT CAPABILITY

AN/GPM-15A 82076 050 0160 CASE MOUNTED

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
CR AS STATED

SPEC OTS EYE NO MER'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

ENCLOSURE (STYLE) 00130

AN/PPM-1	28480	050	0239	PORTABLE
AN/UPM-15	98179	050	0316	PORTABLE
AN/UPM-15A	15196	050	0317	PORTABLE
AN/USM-255	72314	050	0490	PORTABLE
K7006	28480	050	3273	PLUG-IN MODULE
SG-1105/U	28480	050	2067	PORTABLE
SG-366/U	80138	050	0851	PORTABLE
SG-366A/U	80138	050	0852	PORTABLE
SG-475/APS-94	06344	050	0855	RACK MCUNT
SG-69/PPM	28480	050	0818	PORTABLE OR RACK
SG-69A/PPM-1	28480	050	0830	PORTABLE
TS-592/UPM-15	88585	050	1058	PORTABLE
TS-592A/UPM-15	28480	050	1059	PORTABLE
1920A	28480	050	1838	PLUG-IN

PWR SOURCE(S)/CONSUMPTION 00140

04

TYPE III 50,60,AND 400HZ SINGLE PHASE 115/230VAC/75W

PG508
P22
1108
302A

80009	050	8016	50,60,400HZ S-PHASE 115/230VAC/
07421	050	8020	50,60,400HZ S-PHASE 115/230VAC/
15933	050	8018	50,60,400HZ S-PHASE 115/230VAC/150W
26483	050	8017	50,60,400HZ S-PHASE 115/230VAC/20W

AN/GPM-15	82076	050	0159	50-1000HZ S-PHASE 115VAC/38W
AN/GPM-15A	82076	050	0160	50-1000HZ S-PHASE 115VAC/38W
AN/PPM-1	28480	050	0239	50-60HZ S-PHASE 115/230VAC 325W
AN/PPM-1A	28480	050	3596	50-60HZ S-PHASE 115-230VAC
AN/UPM-15	98179	050	0316	50-1000HZ S-PHASE 115VAC/300W
AN/UPM-15A	15196	050	0317	50-1000HZ S-PHASE 115VAC 300W
AN/USM-255	72314	050	0490	60HZ S-PHASE 115VAC
AN/USM-271	80009	050	0500	50-400HZ S-PHASE 115/230VAC 40W
AN/USM-359	80009	050	3617	60HZ S-PHASE 115/230VAC 115W
AN/USM-374	80009	050	0541	50-800HZ S-PHASE 105/125 35W
B7B	08692	050	3251	50-60HZ S-PHASE 115VAC 375W
PP-1	04596	050	1912	7.5VDC BATTERY
PG-32	24141	050	1914	50-60HZ S-PHASE 115/230VAC 110W
RCJ 20006	23405	050	3287	50-400HZ S-PHASE 115VAC 70W
SG-1105/U	28480	050	2067	48-440HZ S-PHASE 120/240VAC 80W
SG-343/UPM-15A	15196	050	0850	50-1000HZ S-PHASE 115VAC/300W

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY - PCT-
OR AS STATED

REC DTS. ETE NO	MFR'S MDL NO	TYPE DESIGNATOR/ MFR'S MODEL NO	FSCM	FAM CODE	TMDE ID NC.	PARAMETER
		PMR SOURCE(S)/CONSUMPTION 00140				
		SG-366/U	80138	050	0851	60HZ S-PHASE 105/125VAC/110W
		SG-366A/U	80138	050	0852	60HZ S-PHASE 105/125VAC 15W
		SG-475/AP5-94	06304	050	0855	60HZ S-PHASE 115VAC 25W
		SG-638/UPM-10	36004	050	0827	50-1600HZ S-PHASE 115VAC
		SG-69/PPM	28480	050	0818	50-60HZ S-PHASE 115-230VAC 325W
		SG-69A/PPM-	28480	050	0830	50-60HZ S-PHASE 115/230VAC/380W
		SG-69B/PPM-1	28480	050	0831	50-60HZ S-PHASE 115-230VAC 325W
		TS-592/UPM-15		050	1058	50-1000HZ S-PHASE 115VAC
		TS-592A/UPM-15	88595	050	1059	50-1000HZ S-PHASE 115VAC
		101	15933	050	1883	50-4000HZ S-PHASE 115/230VAC 15W
		1013	82199	050	1874	50-4000HZ S-PHASE 115/230VAC 70W
		109	80099	054	1885	50-800HZ S-PHASE 115VAC/60W
		1105A	28480	050	2562	50-4000HZ S-PHASE 45VAC/1W
		1217C	24655	050	1830	50-60HZ S-PHASE 115VAC 90W
		132A	13488	050	1889	50-60HZ S-PHASE 105/125VAC
		1399	13488	050	1890	50-60HZ S-PHASE 105/125VAC 75W
		2138	28480	050	1850	50-1000HZ S-PHASE 115/230VAC 1W
		216A	28480	050	3348	50-4000HZ S-PHASE 115VAC 325W
		216A	28480	050	1851	50-60HZ S-PHASE 115-230VAC/120W
		218AR	28480	050	1852	50-60HZ S-PHASE 115/230VAC 555W
		222A	28480	050	1853	50-60HZ S-PHASE 115/230VAC 80W
		2901	80009	050	1840	60HZ S-PHASE 115VAC
		3450D	92110	050	1844	50-60HZ S-PHASE 105/125VAC 500W
		5070B	80138	050	2576	50-60HZ S-PHASE 117VAC 15W
		6254-S	13222	050	1848	60HZ S-PHASE 115VAC 200W
		8025B	28480	050	1849	50-4000HZ S-PHASE 115/230VAC 84W

MT8F SPECIFIED/PREDICTED 00150

40

READOUT METHOD(S) 00160

AN/GPM-15	82076	050	0159	METER
AN/GPM-15A	82076	050	0160	METER
AN/PPM-1	28480	050	0239	METERS, CTALS
AN/UPM-15	98179	050	0316	METER, CTAL
AN/UPM-15A	15196	050	0317	METER, CTAL
AN/USM-255	72314	050	0490	CTAL

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY - PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CCDE ID NC. PARAMETER

READOUT METHOD(S) 00160

AN/USM-271	80009	050	0500	PUSHBUTTONS
AN/USM-359	80009	050	3617	SWITCH SELECTION
873	06692	050	3251	DIAL
K7006	28480	050	3273	DIGITAL
MP-1	04596	050	1912	METER, CIAL
RCJ 20006	23405	050	3287	DIAL
SG-1105/U	28480	050	2067	CIAL
SG-343/UPM-15A	15196	050	0850	CIAL
SG-366/U	80138	050	0851	METER
SG-368A/U	80138	050	0852	METER, CIALS
SG-475/APS-94	06344	050	0855	METER, CIALS
SG-638/UPM-10	36004	050	0827	CIALS
SG-69/PPM	28480	050	0818	DIAL
SG-69A/PPM-1	28480	050	0830	DIAL
SG-69B/PPM-1	28480	050	0831	DIAL
TG-501	80009	050	1795	DIGITAL
TS-592A/UPM-15	88585	050	1059	DIAL
101	15933	050	1883	CIALS
1013	82199	050	1874	METER, CIAL
1105A	28480	050	2562	DIAL
1217C	24655	050	1830	DIAL
132A	13488	050	1889	DIAL
1398	13488	050	1890	METER
1920A	28480	050	1838	CIAL
215A	28480	050	3348	ROTARY SWITCHES
216A	28480	050	1851	DIAL
218AR	28480	050	1852	DIALS
222A	28480	050	1853	DIAL
2901	80009	050	1840	PUSHBUTTON
50708	80138	050	2576	DIAL
6254-5	13222	050	1848	DIALS
80358	28480	050	1849	DIAL

PRIMARY INPUT CONNECTOR(S) 00170

04

050 9004 SERIES-BMC

AN/GPM-15	82076	050	0159	CABLES & ADAPTERS
AN/USM-271	80009	050	0500	BNC
AN/USM-374	80009	050	0541	CABLES
SG-1105/U	28480	050	2067	TEST LEADS

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY - PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

PRIMARY INPUT CONNECTOR'S 00170

SG-343/UPM-15A	15196	050	0850	CABLES
SG-475/APS-94	06344	050	0855	BMC
SG-69/PPM	28480	050	0818	BMC AND N-TYPE
1013	82199	050	1874	LEADS
1105A	28480	050	2562	BMC
1398	13488	050	1890	TEST PROBES/CABLE HARNESS
1920A	28480	050	1838	CABLES
214A	28480	050	3348	TEST LEADS
222A	28480	050	1853	CABLES
2901	80009	050	1840	COAXIAL CABLE VIA REAR PANEL CONNECTOR
50708	80138	050	2576	TEST LEADS
6254-5	13222	050	1848	BANANA JACKS

ENVIRONMENTAL CONDITIONS 00200

04	050	9004	MIL-T-28800 TYPE III CLASS 5 STYLE E COLOR R
	82076	050	0159
			MIL-T-21200 CLASS 2

TEMP OPER/NON-OPERATING 00210

04	050	9004	0 TO 50C/-55 TC 75C
1108	15933	050	8018
			0-50C

AN/GPM-15	82076	050	0159	AS PER MET-CD502 PROCEDURE 1&2
AN/GPM-15A	82076	050	0160	-20C-+55C/
AN/USM-359	80009	050	3617	+20C-+30C/0C-+50C

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY - PCT -
OR AS STATED

FAM TMDE
CODE ID NC. PARAMETER

SPEC OTS ETE
NO MFR'S MDL NO TYPE DESIGNATOR/
MFR'S MODEL NO FSCM

RELATIVE HUMIDITY 00220

04 050 9004 95(+5-0)

82076 050 0159 AS PER METH-00507 PROCEDURE (COVER REMOVED)

ALTITUDE OPER/NON-OPER 00230

04 050 9004 3050M(10000FT)/12000M(40000FT)

80009 050 3617 LT 10,000FT/LT 50,000FT

VIBRATION LIMIT (MAXIMUM) 00240

04 050 9004 2G

SHOCK, PULSE LEVEL 00250

04 050 9004 30G

ATTENUATION, OUTPUT 03600

28480 050 0818 0-50DB IN 10 DB STEPS
28480 050 0830 0-50DB IN 10 DB STEPS
80138 050 2576 101DB IN 1DB STEPS

SG-69/PPM
SG-69A/PPM-1
50708

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY - PCT -
OR AS STATED

SPEC OTS ETE TYPE DESIGNATOR/
NO MFR'S MDL NO MFR'S MODEL NO

FAM CODE ID NC. PARAMETER

IMPEDANCE, OUTPUT 35200

04

050 9004 50 OHMS

PG508
P22
101A
110B
302A

80009 050 8016 50 OHMS
07421 050 8020 50 OHMS
00000 050 8019 50 OHMS
15933 050 8018 50 OHMS
26483 050 8017 50 OHMS

AN/GPM-15 82076 050 0159 50 OHMS
AN/GPM-15A 82076 050 0160 50 OHMS
AN/PPM-1 28480 050 0239 50 OHMS
AN/PPM-1A 28480 050 3596 50 OHMS
AN/UPM-15 98179 050 0316 50 AND 70 CHMS
AN/UPM-15A 15196 050 0317 50 AND 75 CHMS
AN/USM-255 72314 050 0490 50 AND 100C OHMS
AN/USM-374 80009 050 0541 50 OHMS
B7B 06692 050 3251 50 OHMS
SG-1105/U 28480 050 2067 50 OHMS
SG-343/UPM-15A 15196 050 0850 2500, 250, OR 50-MATCHED
SG-366/U 80138 050 0851 50 OHMS
SG-366A/U 80138 050 0852 50 OHMS
SG-475/APS-94 06344 050 0855 100 OHMS
SG-69/PPM 28480 050 0818 50 OHMS
SG-69B/PPM-1 28480 050 0831 50 OHMS
TS-592/UPM-15 050 1058 2500, 250(150 OHMS-MATCHED)
TS-592A/UPM-15 88585 050 1059 2500, 250(150 OHMS-MATCHED)
109 80009 054 1885 50 OHMS
1105A 28480 050 2562 50 OHMS
222A 28480 050 1853 50 OHMS
5070B 80138 050 2576 50 OHMS
8005B 28480 050 1849 50 OHMS

MARKERS

41600

AN/USM-271 80009 050 0500 16 TIME-MARKER SELECTION FROM 10NSEC TO 5SEC
TG-501 80009 050 1795 EXT TRIGGER FOR OSCILLOSCOPES

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MDL NO FSCM CODE ID NO. PARAMETER

OUTPUT SIGNALS 50000

04

PULSE OUTPUT W/VARIABLE PULSE WIDTH

CONTINUOUS CR PULSE
PULSES
SANTOOTH WAVE PULSE
SQ WAVE
2 PHASE SINE WAVE REF AND VARIABLE PHASE
CW & PULSE
RECTANGULAR PULSE
SQ WAVES AND PULSE
HETEROZYNE PRINCIPAL USING 2 HIGH FREQ DSC
PULSE
TRIGGER BIAS SOURCE CONNECTS TO PULSE GEN SUPPLY
MARKERS-SINEWAVES, TRIGGER PULSE INTERVALS
VARIABLE WIDTH AND FREQ PULSES
TRANSIENT SINGLE OR SELECTED RATE
TRIPLE OUTPUT PULSE,

PULSE WIDTH 56010

04

VARIABLE FROM 10 NANOSECOND TO 1 SECOND

+/--.002PCT

PG508
P22
101A
1108
302A

80009 050 8016
07421 050 8020
00000 050 8019
15933 050 8018
26483 050 8017

SNS TO 50MS
10NSEC TC 1SEC
50NSEC TC 500PSEC
3NSEC TO 5PSEC
10NSEC

CN DIFF RANGES

40,250,290USEC
.5 TO 100USEC
0 TO 100USEC
.07 TO 10USEC
VARIABLE
50NSEC TC 50USEC
2NSEC TC 1.5USEC
-05 TO 10,000USEC
1 TO 2 USEC
.20 TO 200USEC

+/-3 PCT

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSC# FAM CODE TO NC. TMDE PARAMETER

PULSE WIDTH 56010

+/-0.1 PCT
+/-10 PCT
+/-1 PCT

+/-0.1 PCT
+/-1 PCT

IN 1 RANGE
IN 5 RANGES

PULSE MOD, TRANS TIME 56430

04

050 9004 LT 5 MANOSEC

P22
101A
1108
302A

07421 050 8020 3.5NSEC
00000 050 8019 5NSEC
15933 050 8018 1.3NSEC RISE & FALL
26483 050 8017 LT 5NSEC

CN DIFF RANGES

AN/GPM-15 82076 050 0159 18.55+80USEC
AN/GPM-15A 82076 050 0160 -05 TO -25LSEC
AN/PPM-1 28480 050 0239 70NANOSEC TC 10USEC
AN/UPM-15 98179 050 0316 500NANOSEC TO 100USEC
AN/UPM-15A 15196 050 0317 500NANOSEC TC 100USEC
AN/USM-255 72314 050 0490 2MSEC TO 200NSEC
AN/USM-359 80009 050 3617 10NSEC TC 10USEC
B78 06692 050 3251 0 TO 10MSEC
PG-32 24141 050 1914 30NSEC TO 1SEC
SG-343/UPM-15A 15196 050 0850 50NSEC-TO 100USEC
SG-366/U 80138 050 0851 200NSEC TC 20USEC
SG-366A/U 80138 050 0852 100NSEC TO 100LSEC
SG-475/APS-94 06344 050 0855 100USEC TO 10MSEC
SG-69/PPM 28480 050 0818 02USEC
SG-69B/PPM-1 28480 050 0831 70NSEC TO 10USEC
TG-501 80009 050 1795 5 TO 10MSEC
TS-592/UPM-15 88585 050 1059 300NSEC TO 2USEC
TS-592A/UPM-15 15933 050 1883 2 TO 30USEC
101 88585 050 1883 40NSEC TC 10MSEC
1920A 28480 050 1838 0 TO 10USEC
214A 28480 050 3348 50NSEC TC 10MSEC

+/-3 PCT

+/-0.05 PCT

IN 6 RANGES
IN 5 RANGES

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

FAM TMCE
CODE ID NC. PARAMETER

SPEC OTS ETE
NO MFR'S MDL NO TYPE DESIGNATOR/
MFR'S MDL NO

PULSE MOD, TRANS TIME 5643C

+/-0.2 PCT
+/-0.1 PCT

IN 5 RANGES
IN 6 RANGES
IN 16 STEPS
IN

100USEC TO 10MSEC
20MSEC TO 5MSEC
1USEC TC 5
0 TO 3SEC
10MSEC TO 2SEC

28480 050 1852
28480 050 1853
80009 050 1840
80138 050 2576
28480 050 1849

PULSE RATE 5660C

.005 PCT

10 TO 10 MILLION PULSES PER SEC

050 9004

04

PG508
P22
101A
1103
302A

80009 050 8016
07421 050 8020
00000 050 8019
15933 050 8018
26483 050 8017

5HZ TO 50MHZ
0 TO 50MHZ
1HZ TO 5MHZ
0 TO 125MHZ
10HZ TC 50MHZ

+/-0.005PCT
+/-10 PCT
+/-0.005PCT

IN 6 RANGES
IN 6 RANGES

82076 050 0159
82076 050 0160
28480 050 0239
98179 050 0316
15196 050 0317
72314 050 0490
80009 050 3617
80009 050 0541
06692 050 3251
28480 050 3273
04596 050 1912
23405 050 3287
28480 050 2067
15196 050 0850
80138 050 0851
80138 050 0852
06344 050 0855
36004 050 0827
28480 050 0818
28480 050 0830
28480 050 0831
80009 050 1795
80585 050 1058
80585 050 1059

100KHZ TO 1.950MHZ
100KHZ TO 1.950MHZ
50 TO 5000 PULSE REPETITION
50 TO 10,000 PULSE REPETITION RATE
50 TO 10,000 PULSE REPETITION
50HZ TC 5MHZ
0 TO 10MHZ PULSE REPETITION
10 TO 10KHZ PULSE REPETITION RATE
0 TO 2MHZ PULSE REPETITION
18 TC 26.50GHZ PART OF AN/USM-234
10 + 1.6MHZ
1 TO 99.99KHZ
1 TO 50MHZ
50HZ TC 10KHZ PULSE REPETITION
12 TO 80MHZ W/400-4000 PPS RATE
10 TC 120MHZ W/50 TC 5KHZ PULSE REPETITION
10 TO 10KHZ PULSE REPETITION RATE
200 TO 2500HZ PULSE REPETITION
50 TO 5KHZ PULSE REPETITION
2 TO 5KHZ PULSE REPETITION RATE IN 2 RANGES
50 TO 5KHZ PULSE REPETITION
0 TO 5MHZ
50 TO 10KHZ PULSE REPETITION
50 TO 10KHZ PULSE REPETITION

+/-1 PCT

IN 3 RANGES
IN 5 BANDS

AN/GPM-15
AN/GPM-15A
AN/PPM-1
AN/UPM-15
AN/UPM-15A
AN/USM-255
AN/USM-359
AN/USM-374
B73
K7006
RCO 20006
SG-1105/U
SG-343/UPM-15A
SG-366/U
SG-366A/U
SG-475/APS-94
SG-638/UPM-10
SG-69/PPM
SG-69A/PPM-1
SG-69B/PPM-1
TG-501
TS-592/UPM-15
TS-592A/UPM-15

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S P/N TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

SYNCHRONIZATION, MODE OF 74400

80009 050 1840 EXT CLOCK INPUT
28480 050 1849 SYNC AND ASYNCHRONOUS GATING

VOLTAGE, OUTPUT 85600

04 VARIABLE W/MAXIMUM OF 3V ACROSS 50 OHM LOAD

PG50E
P22
101A
110B
302A

IN 3 RANGES

AN/GPM-15 82076 050 0159 150V TC 1V
AN/GPM-15A 82076 050 0160 0 TO 200V
AN/PPM-1 28480 050 0239 0 TO 50V
AN/PPM-1A 28480 050 3596 50V AT 50 OHM LOAD
AN/UPM-15 98179 050 0316 2MV TC 200V
AN/UPM-15A 15196 050 0317 2MV TC 200V
AN/USM-255 72314 050 0490 10V AT 50 OHMS, 17V AT 1000 OHMS
AN/USM-359 80009 050 3617 0 TO 10V
AN/USM-374 80009 050 0541 10V
87B 06692 050 3251 50V
PG-12 24141 050 1914 20MV TC 20V
SG-1105/U 28480 050 2067 200MV TC 5V
SG-343/UPM-15A 15196 050 0850 2MV TC 200V
SG-366/U 80138 050 0851 0 TO 200MV
SG-366A/U 80138 050 0852 0 TO 200MV
SG-475/APS-94 06344 050 0855 0 TC 10V
SG-69/PPM 28480 050 0818 0 TO 50V
SG-69A/PPM-1 28480 050 0830 0 TO 50V
SG-69B/PPM-1 28480 050 0831 -50 TO 50V
TS-592/UPM-15 88585 050 1058 20-200V
101 15933 050 1059 20 TC 200V
109 80009 054 1885 500MV TC 10V
1217C 24655 050 1830 0-50V
1398 13488 050 1890 0 TO 40V
1920A 28480 050 1838 33MV TC 10V
214A 28480 050 3348 200MV TC 100V

IN 5 RANGES

IN 9 RANGES

AD-A052 424

ARINC RESEARCH CORP ANNAPOLIS MD
REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS FOR THE DEFINI--ETC(U)
MAR 78 L J GRAHAM, A L SIMMONS, B F PAIZ
1076-01-2-1720

F/G 14/2

DAEA18-72-A-0005

NL

UNCLASSIFIED

2 OF 4
AD
A052424



DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. FAM TMOE CODE ID NO. PARAMETER

PULSE RATE 56600

101 15933 050 1883 10HZ TC 10MHZ PULSE REPETITION RATE IN 8 RANGES
1013 82199 050 1874 200HZ TC 200KHZ
109 80009 054 1885 -5NSEC TC 100NSEC
1105A 28480 050 2542 0 TO 100KHZ
1217C 24655 050 1830 0 TO 2.4MHZ W/100NSEC TO 1SEC IN 7 RANGES
132A 13488 050 1889 5 TO 3.5MHZ
1398 13488 050 1890 10 TC 50MHZ
1920A 28480 050 1838 0 TC 25MHZ
2138 28480 050 1850 0 TO 1MHZ
214A 28480 050 3348 10 TC 10MHZ IN 5 RANGES
216A 28480 050 1851 1 TC 100MHZ W/PPS 5NSEC TO 100NSEC IN 3 RANGES
222A 28480 050 1853 10 TC 10MHZ IN 6 RANGES
2501 80009 050 1840 50 TC 10MHZ
50708 80138 050 2576 10 TO 120MHZ W/PPS 50 TO 50KHZ PULSE RATE IN 5 RANGES
6254--5 13222 050 1848 .5 TC 40PPS
8005B 28480 050 1849 .3HZ TC 20PHZ IN 5 RANGES

+/- .3 PCT

SYNCHRONIZATION, MODE OF 74400

82076 050 0160 SYNC SIGNALS OF 5 TO 75V WITHIN 50 TO 10,000HZ INT & EXT
28480 050 3596 INT AND EXT
15156 050 0317 INT AND EXT SYNC
72314 050 0490 GATEC
80009 050 3617 UNDELAYED PULSE, PAIRED PULSES, EXT TRIGGER, EXT GATE PULSE
80009 050 0541 INT AND EXT
06692 050 3251 INT CR EXT SYNC W/+ OR - POLARITY
28480 050 2067 EXT CONTROLLED, VARIABLE REP RATE, DELAY, WIDTH, GDC OFFSET
15196 050 0850 INT CR EXT SYNC W/SINGLE OR DOUBLE PULSE
80138 050 0852 INT CR EXT SYNC
06344 050 0855 INT CR EXT SYNC DELAY OR NORMAL
36004 050 0827 INT SYNC
28480 050 0818 INT CR EXT SYNC W/DELAY UP TO 100NSEC + OR - POLARITY
28480 050 0830 INT SYNC W/DELAY OUTPUT UP TO 100NSEC
28480 050 0831 INT CR EXT SYNC W/+ CR - POLARITY
88585 050 1058 INT CR EXT SYNC W/1 CR PULSES + OR - POLARITY
15933 050 1883 SINEWAVE TRIGGE, SINGLE OR DOUBLE PULSE
13488 050 1889 + AND - POLARITY, W/ADJUSTABLE PULSE WIDTH AND RATE
13488 050 1890 DELAY PULSE VARIABLE, DC OFFSET -2V TO +2V
28480 050 3348 VARIABLE WIDTH, AMPLITUDE PULSE, + AND - PULSE
28480 050 1852 INT CR EXT TRIGGERING
28480 050 1853 EXT TRIGGERING + OR - POLARITY, PULSE WIDTH VARIABLE

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR PULSE

SPEC OTS EYE NO MFR'S MDL NO	TYPE DESIGNATOR/ MFR'S MODEL NO	FAM CODE	TMDE ID NO.	PARAMETER
		28480	050	1851
		28480	050	1853
		80138	050	2576
		13222	050	1848

VOLTAGE OUTPUT ----- 85600

IN 3 RANGES

400MV TC 10V
10V
0 TO 3V
10 TC 250V

ACCURACY -PCT-
OR AS STATED

APPENDIX D

SIGNAL GENERATOR, UHF-A

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Signal Generator, UHF-A" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table D-1 and other appropriate parts of this report.

Table D-1. SUPPORTING PUBLICATIONS FOR SIGNAL GENERATOR, UHF-A	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-3-1534 September 1976	Task 3A: Determination of the Set of Characteristics of TMDE Families
1073-01-6-1554R November 1976 (Revised January 1977)	Task 4/5A: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-11-1571 January 1977	Task 6A: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table D-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Signal Generator, UHF-A":

- TMDE Family Name: Signal Generator, UHF
- TMDE Family Code: 107
- OTS ETE Specification Number: 15

The TMDE Family for the Signal Generator, UHF was divided into two OTS ETE Specifications -- UHF-A (Instrument A) and UHF-B (Instrument B). This division covers the full UHF frequency spectrum and makes the specification competitive in the commercial market. This appendix presents Signal Generator, UHF-A, and Appendix E presents Signal Generator, UHF-B.

3. SUMMARY OF RECOMMENDATIONS

Table D-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of Signal Generator, UHF-A parameters reviewed, retained, added, deleted, modified, or subjected to other action are as follows:

- Reviewed 34
- Retained 31
- Added 0

Table D-2. (continued)

[illegible]

Table D-2. SUMMARY OF PARAMETER ANALYSIS FOR SIGNAL GENERATOR, UHF-A

Parameter Code	Parameter Name	Param-eters Listed			ARINC Research Analysis						CERCOM Comments			Remarks
		OTS ETE Spec	OTS ETE	USA TMDE	Retain	Add	Delete	Modify	Other	Concur	Add	Modify	Delete	
00100	Signal Generator, UHF-A	x	x	x	x									
00110	Dimensions in cm/in.	x	x	x	x									
00120	Weight in kg/lb.	x	x	x	x									
00130	Enclosure Style	x	x	x	x									
00140	Power Source/Consumption	x	x	x	x									
00150	MTBF	x			x									
00160	Readout Method		x	x					x					
00170	Primary Input Connectors	x			x									
00200	Environmental Conditions	x			x									
00210	Temperature, Operating/Nonoperating	x			x									
00220	Relative Humidity	x			x									
00230	Altitude, Operating/Nonoperating	x			x									
00240	Vibration Limit	x			x									
00250	Shock Level	x			x									
01200	Amp Mod - Ext	x	x	x				x						
01230	Amp Mod - Ex., Sensitivity	x			x									
01640	Amp Mod - Internal, Distortion	x			x									
03600	Attenuation Output	x	x		x									
19600	Distortion - Internal	x			x									
26020	Frequency Modulation	x		x	x									

(continued)

- Deleted 0
- Modify 1
- Other Action 2

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters included in this analysis and summarized in Table D-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to the specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

SIGNAL GENERATOR, UHF-A

Narrative:

This parameter describes the given manufacturer and Army equipment name.

Conclusion:

The OTS ETE and TMDE names are compatible with the OTS ETE Specification.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/in

Narrative:

Data for this parameter is limited; however, available OTS ETE and TMDE data is within the OTS ETE Specification.

Conclusion:

The available data listed for OTS ETE and TMDE indicate a common base with the OTS ETE Specification, which promotes OTS ETE competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

Available OTS ETE data are within the OTS ETE Specification. The TMDE varies above and below the OTS ETE Specification.

Conclusion:

The OTS ETE Specification is compatible with the listed OTS ETE.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
00130	ENCLOSURE STYLE
Narrative:	There was no data available for the OTS ETE. TMDE data does not indicate a rack mount capability or requirement.
Conclusion:	The available data inhibited analyses on this parameter; however, rack mount capabilities should be easily obtainable.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
00140	POWER SOURCE/CONSUMPTION
Narrative:	Available OTS ETE data indicates some OTS ETE do not fully meet all of the OTS ETE Specification attributes.
Conclusion:	The OTS ETE data indicate that the majority of OTS ETE meet the OTS ETE Specification. Strict adherence to specifications would inhibit OTS ETE manufacturer competition; however, the specified power requirements are required in a military environment.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
00150	MTBF
Narrative:	OTS ETE and TMDE Source Documents do not indicate the MTBF of the listed items. However, the MTBF for the OTS ETE Specification was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA-18-72-A-0005, Delivery Order 0007.
Conclusion:	Based on the available data, the MTBF specified appears to be reasonable.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods employed by the ETE industry and the TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A specific readout method should not be specified.

CERCOM Comments:

Parameter Number

Parameter Name

00170

PRIMARY INPUT CONNECTORS

Narrative:

No data available.

Conclusion:

The connector types specified are basically used with this type of equipment.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ALTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01200

AMP MOD EXT

Narrative:

The available OTS ETE and TMDE parameter data exceed the specification frequency spectrum.

Conclusion:

The listed OTS ETE and TMDE data indicate a greater frequency range exists for external modulation input.

Recommendation:

Modify specification to read 0 to 1MHz sine or square wave external amplitude modulation.

CERCOM Comments:

Parameter Number

Parameter Name

01230

MODULATION, EXTERNAL SENSITIVITY

Narrative:

There was no OTS ETE or TMDE data available for comparative analysis.

Conclusion:

This parameter is an integral part of the modulation parameter and is essential for assuring proper external modulation percentage level.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01640

AMPLITUDE MODULATION-INTERNAL DISTORTION

Narrative:

There was no OTS ETE or TMDE data available for comparative analysis.

Conclusion:

This parameter is an integral part of the modulation characteristics and is essential for proper modulation.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

03600

ATTENUATION OUTPUT

Narrative:

One (1) OTS ETE source document lists this parameter, which compares to the OTS ETE Specification.

Conclusion:

This parameter is significant for alignment and testing of electronic equipment requiring different signal input levels.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

19600

DISTORTION INTERNAL

Narrative:

No data available.

Conclusion:

This parameter is a function of frequency and modulation and is essential as a specification for signal integrity.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26020

FREQUENCY MODULATION

Narrative:

Two TMDE listed this parameter.

Conclusion:

There is insufficient data for a comparative analysis. The specification as listed provides enhancement but it may also inhibit OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26400

FREQUENCY MODULATION - INTERNAL

Narrative:

The OTS ETE and TMDE are compatible with the OTS ETE Specification.

Conclusion:

The OTS ETE are compatible with the OTS ETE Specification and will insure OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26440

FREQUENCY MODULATION - INTERNAL, SPURIOUS AM

Narrative:

No data available.

Conclusion:

This parameter identifies spurious AM level allowable on an FM signal. It is essential for FM signal purity.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26600

FREQUENCY RANGE

Narrative:

The OTS ETE frequency range is common to the OTS ETE Specification.

Conclusion:

The common base of OTS ETE parameters to the OTS ETE Specification indicates a good mix for competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
26800	FREQUENCY RESPONSE
Narrative:	This parameter was not listed in the OTS ETE or TMDE documentation.
Conclusion:	This parameter is an integral part of the frequency parameter and is a necessary factor in maintaining signal output, sensitivity, and selectivity.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
27000	FREQUENCY SHIFT
Narrative:	This parameter was not listed in the OTS ETE or TMDE documentation.
Conclusion:	This parameter represents critical parameter tolerance within a major parameter, i.e., frequency, and is essential to assure frequency stability.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
27220	FREQUENCY STABILITY
Narrative:	There is no data available for a comparative analysis of this parameter.
Conclusion:	The time element for equipment warm-up and frequency stability is required by MIL-T-28800B specification.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

34400

IMPEDANCE INPUT

Narrative:

One TMDE item listed this parameter's characteristics.

Conclusion:

There was insufficient data available on this parameter; however, it is an important characteristic for matching the signal generator to external modulation sources.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

35200

IMPEDANCE OUTPUT

Narrative:

The impedance parameters for OTS ETE and TMDE are common to the OTS ETE Specification.

Conclusion:

The comparison between the OTS ETE and the OTS ETE Specification indicates this parameter promotes competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

42600

MODULATION VOLTAGE

Narrative:

The OTS ETE Specification states the voltage required to produce 10 kHz deviation shall not differ more than +10% from the voltage required to 1 kHz.

Conclusion:

There was no data to make a comparative analysis. This parameter is an integral part of modulation and essential when the generator has external modulation capability.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

50000

OUTPUT SIGNALS

Narrative:

This parameter was listed by the OTS ETE and the TMDE.

Conclusion:

This parameter is not listed in the OTS ETE Specification but is described in the scope paragraph of the specification.

Recommendation:

This parameter does not have to be specified in the OTS ETE Specification.

CERCOM Comments:

Parameter Number

Parameter Name

68000

SPURIOUS FREQUENCY

Narrative:

Only one (1) OTS ETE listed this parameter.

Conclusion:

This parameter is a function of a major parameter of frequency and is necessary when sensitive alignments are made.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

68400

SPURIOUS NOISE OUTPUT

Narrative:

There was no data available for OTS ETE and TMDE for a comparative analysis with the OTS ETE Specification.

Conclusion:

This parameter is a function of a major parameter of frequency and is necessary when sensitive alignments are made.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

69600

STANDING WAVE RATIO (SWR)

Narrative:

One (1) TMDE and one (1) OTS ETE listed this parameter.

Conclusion:

Data on this parameter is insufficient for a comparative analysis but represents an important signal matching characteristic.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

85600

VOLTAGE OUTPUT

Narrative:

The OTS ETE data reflects a common base with the OTS ETE Specification.

Conclusion:

The common base of the OTS ETE to the OTS ETE Specification indicates a favorable competition factor for OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7), "Definitization of OTS ETE Specification", for the Signal Generator, UHF-A OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 5 OTS ETE, and 13 Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE
NO MFR'S MDL NO

TYPE DESIGNATOR/
MFR'S MODEL NO

FSCM CODE ID NC.

PARAMETER

00100

107 9015 SIGNAL GENERATOR UHF

107 9015 SIGNAL GENERATOR UHF

SMAT
125
612A
6201
6202

23340 107 8023 SIGNAL GENERATOR
12678 107 8024 SIGNAL GENERATOR
28480 107 8022 SIGNAL GENERATOR
03782 107 8021 SIGNAL GENERATOR
25778 107 8025 SIGNAL GENERATOR

AN/URN-149
AN/URN-49
AN/URN-49A
AN/URN-56
AN/URN-251
AN/USM-312
M187-4
P7006
SG-340A/U
470A-1000
86608-001
86631B
86632A

82199 107 0396 GENERATOR SIGNAL
35225 107 0356 GENERATOR SIGNAL
35225 107 0357 GENERATOR SIGNAL
01113 107 0361 GENERATOR SIGNAL
24655 107 0758 GENERATOR SIGNAL
24655 107 0522 GENERATOR SIGNAL
16469 107 3279 GENERATOR RF POWER PLUG-IN
77327 107 3283 GENERATOR SIGNAL
28480 107 0849 GENERATOR SIGNAL
94668 107 1642 SYNTHESIZED SIGNAL GENERATOR
28480 107 2073 AUXILIARY SECTION
28480 107 2091 MODULATION SECTION
28480 107 2092

DIMENSIONS IN CM/INS 00110

15

107 9015 50CM(19IN)HX50CM(19IN)HX52CM(20IN)D

125
612A
6202

12678 107 8024 30CM(12IN)HX50CM(20IN)HX50CM(20IN)D
28480 107 8022 34(14IN)HX42CM(17IN)HX55CM(22IN)D
25778 107 8025 33CM(13IN)HX28CM(11IN)HX43CM(17IN)D

AN/URN-149
AN/URN-49A
AN/URN-56
AN/URN-251
AN/USM-312
M187-4
P7006
SG-340A/U

82199 107 0396 52.07CM(20.5IN)HX66.68CM(26.25IN)HX41.91CM(16.5IN)D
35225 107 0357 47.31CM(18.66IN)HX40.64CM(16IN)HX70.80CM(27.88IN)D
01113 107 0361 34.29CM(13.5IN)HX41.91CM(16.5IN)HX54.61CM(21.5IN)D
24655 107 0758 20.32CM(8IN)HX19.37CM(7.63IN)HX24.13CM(9.5IN)D
24655 107 0522 19.45CM(7.68IN)HX24.13CM(9.5IN)HX20.32CM(8IN)D
16469 107 3279 15.24CM(6IN)HX35.56CM(14IN)HX12.70CM(5IN)D
77327 107 3283 17.78CM(7IN)HX48.26CM(19IN)HX15.24CM(6IN)D
28480 107 0845 41.91CM(16.5IN)HX54.61CM(21.5IN)HX34.29CM(13.5IN)D

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UNF-A

ACCURACY - PCT -
OR AS STATED

SPEC OTS EYE
NO MFR'S POL NO

TYPE DESIGNATOR/
MFR'S MODEL NO

FSCM CODE ID NO.

PARAMETER

DIMENSIONS IN CM/INS 00110

94668 107 1642 17-15CM(16.75IN)HX46.95CM(18.5IN)HX25.40CM(10IN)D
28480 107 2073 48.26CM(19IN)HX43.02CM(16.94IN)HX56.93CM(21.63IN)D

WEIGHT IN KG/LBS 00120

15 107 9015 27KG(60LBS)

125 12678 107 8024 55KG(120LBS)
612A 28480 107 8022 25KG(55LBS)
6202 25778 107 8025 11.4KG(25LBS)

AN/URM-149 82199 107 0396 54.93KG(121LBS)
AN/URM-49 35225 107 0356 68.10KG(150LBS)
AN/URM-49A 35225 107 0357 68.10KG(150LBS)
AN/URM-56 01113 107 0361 29.51KG(65LBS)
AN/URM-251 24655 107 0758 2.72KG(6LBS)
AN/USM-312 24655 107 0522 3.63KG(8LBS)
M187-4 16469 107 3279 4.54KG(10LBS)
P7006 77327 107 3283 6.81KG(15LBS)
SC-340A/U 28480 107 0849 25.42KG(56LBS)
86608-001 28480 107 2073 23.19KG(51LBS)

ENCLOSURE (STYLE) 00130

15 107 9015 MIL-T-28800B STYLE E W/RACK MOUNT CAPABILITY

AN/USM-251 24655 107 0758 BENCH MOUNTED CASE
AN/USM-312 24655 107 0522 BENCH MOUNTED
M187-4 16469 107 3279 PLUG-IN FOR MTS 10240A SIGNAL GENERATOR
P7006 77327 107 3283 PLUG-IN FOR PRC MODEL 816-510 MAINFRAME
SC-340A/U 28480 107 0849 CABINET
86608-001 28480 107 2073 FRAME FOR RF PLUG-INS
86631B 28480 107 2091 PLUG-IN USED W/HP-86608 PROVIDES FOR EXT AMPLITUDE MOD
86632A 28480 107 2092 PLUG-IN USED W/HP-86608 FOR INT & EXT AM OR FM-MOD

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE TYPE DESIGNATOR/ FAM TME
NO MFR'S MOL NO MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

PMR SOURCE(S)/CONSUMPTION 00140

15 107 9015 TYPE 111 50.60 6400HZ SINGLE PHASE 115/230VAC/215W

125 12678 107 8024 50-60HZ S-PHASE 115/230VAC/400W
612A 28480 107 8022 50-400HZ S-PHASE 115/230VAC/215W
6202 25778 107 8025 115VAC

AN/URM-149 82199 107 0396 50-60HZ S-PHASE 115/230VAC
AN/URM-49 35225 107 0356 50-1600HZ S-PHASE 115VAC/130W
AN/URM-56 01113 107 0361 50-1000HZ S-PHASE 115/230VAC/200W
AN/USM-251 24655 107 0758 60HZ S-PHASE
SG-340A/U 28480 107 0849 50-1000PZ S-PHASE 115/230VAC/215W
470A-1000 94668 107 1642 50-60HZ S-PHASE 115VAC
86608-001 28480 107 2073 48-66HZ S-PHASE 115/230VAC/200W

MTBF SPECIFIED/PREDICTED 00150

15 107 9015 2000 HRS

READOUT METHOD(S) 00160

SMAT 23340 107 8023 METER VIA DIGITAL DIAL
125 12678 107 8024 METER VIA DIGITAL SELECT

AN/URM-49 35225 107 0356 DIALS,METER
AN/URM-49A 35225 107 0357 DIALS,METER
AN/USM-251 24655 107 0758 DIALS
AN/USM-312 24655 107 0522 DIAL
M187-4 16469 107 3279 DIAL
P7006 77327 107 3283 DIGITAL DIAL
SG-340A/U 28480 107 0849 DIGITAL DIAL
470A-1000 94668 107 1642 DIAL,METER
86608-001 28480 107 2073 DIGIT
86632A 28480 107 2092 METER

DEFINITION OF QTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
OR AS STATED

SPEC QTS EYE NO. MFR'S MOL NO. TYPE DESIGNATOR/ MFR'S MODEL NO. FSC# CODE ID NC. PARAMETER

PRIMARY INPUT CONNECTOR(S) 00170

15 107 9015 BNC-SERIES, RF N-SERIES

ENVIRONMENTAL CONDITIONS 00200

15 107 9015 MIL-T-28800B TYPE III CLASS S, STYLE E, COLOR R

TEMP OPER/NCN-OPERATING 00210

15 107 9015 0 TO 50C/-55 TC 75C

RELATIVE HUMIDITY 00220

15 107 9015 95(+5-0)

ALTITUDE OPER/NCN-OPER 00230

15 107 9015 3050M(10000FT)/12000M(40000FT)

VIBRATION LIMIT (MAXIMUM) 00240

15 107 9015 2G

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

SHOCK, PULSE LEVEL 00250

15 107 9015 30G

AMP MOD-EX 01200

15 107 9015 20HZ TC 20KHZ BY EXTERNAL SINE OR SQUARE WAVE CAPABILITY

SMAT 23340 107 8023 1KHZ TC 10PHZ
125 12678 107 8024 SQ-WAVE
612A 28480 107 8022 20HZ TC 5MHZ
6201 03782 107 8021 20 TO 500HZ

AN/URM-149 82199 107 0396 250HZ TC 168KHZ
AN/URM-56 01113 107 0361 5MHZ
SG-340A/U 28480 107 0849 20HZ TC 5MHZ
866318 28480 107 2091 EXT AN

AMP MOD-EX, SENSITIVITY 01230

15 107 9015 5 VOLTS P/P TO PRODUCE MOD LEVEL OF NLT 90 PCT

AMP MOD-INT, DISTORTION 01640

15 107 9015 NGT 1 PCT W/O-50 PCT MOD AND NGT 3PCT 50-90PCT MOD

ATTENUATION, OUTPUT 03600

15 107 9015 RANGE NLT 100DB W/100B VERNIER DIAL AT 108 STEPS +/-208

612A 28480 107 8022 0-1270dB +0-1 6 -

AN/URM-149 82199 107 0396 -70DBM TC -1270dB

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
GR AS STATED

SPEC OTS ETE NO MER'S MDL NO TYPE DESIGNATOR/ MER'S MDL NO FSCM CODE ID NC. PARAMETER

ATTENUATION, OUTPUT 03600

01113 107 0361 0 TO -127DBM

AN/URM-56

DISTORTION, INTERNAL 19600

15

107 9015 MODULATED SIGNAL NGT

2 PCT

FREQ MOD 26020

15

107 9015 INT & EXT 2 TO 300KHZ DEV CAPABILITY

82199 107 0396 0 TO 300KHZ INT & EXT FM
28480 107 2092 0 TO 1MHZ FM

AN/URM-149
86632A

FREQ MOD-INT 26400

15

107 9015 INTERNAL SQ WAVE MOD SIGNAL 1KHZ

+/-10 PCT

SMAI
125
6201
6201
6202

23340 107 8023 1KHZ SC-WAVE
12678 107 8024 1KHZ INTERNAL
03782 107 8021 400 & 1KHZ
03782 107 8021 1KHZ
25778 107 8025 100HZ SINEWAVE & 50 TO 1000 PPS

82199 107 0396 1.1.66, 20, 108KHZ
35225 107 0357 40-4000PPS MOD
01113 107 0361 400 & 1000HZ
24655 107 0758 400 & 1000HZ
28480 107 0845 400 & 1000HZ
94668 107 1642 SQ-WAVE MOD
26480 107 2092 400 & 1000HZ
86632A

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY - PCT-
OR AS STATED

FAM	TMDE	CODE	ID NC.	PARAMETER
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	86
87	87	87	87	87

SPEC	QTS	ETE	TYPE	DESIGNATOR/
NO	MFR'S	MDL NO	MFR'S	MODEL NO
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	

FREQ MOD-INT, SPURIOLS AMP 26440

107 9015 WHEN VIBRATED-NGT 200HZ DEVIATION AT 600/800/1000MHZ

51

26441

1107 9015 AT ANY FREQ W/DEVIATION SET AT 40KHZ-NGT

51

FREQ RANGE 26600

1107 9015 500MHZ TC 1.2GPHZ W/NMT 5 BANDS

15

SMAI
125
612A
6201
6202

23340	107	8023	.5 TO 1.8G \pm Z
12678	107	8024	200MHZ TO 3GHZ
28480	107	8022	450 TO 1230MHZ
03782	107	8021	7.75MHZ TO 1024MHZ
25778	107	8025	1 TC 1000 \pm Z

4/-1 PCT

AN/URM-149
AN/URM-49
AN/URM-49A
AN/URM-56
AN/URM-55
AN/USM-251
AN/USM-312
M187-4
P7006
SG-340A/U
470A-1000
86608-001

107	0366	600MHz TC 1.850GHz
107	0366	394MHz TC 1GHz
107	0357	394 TC 1000MHz
107	0361	450MHz TC 1.230GHz
107	0361	450 TC 960MHz
107	0758	250 TC 990MHz
107	0522	220 TC 1GHz
107	0522	500MHz TC 1GHz
107	3275	500MHz TC 1GHz
107	3283	500MHz TC 1GHz
107	0845	500MHz TC 1.250GHz
107	1642	470MHz TC 1GHz
107	2073	10KHz TC 1.36GHz W/R
107	258480	

```
IN 1 RANGE
IN 1 RANGE
IN 1 RANGE
IN 1 RANGE
IN 1 BAND
IN 1 RANGE
IN 1 RANGE
IN 1 RANGE
```

+/-.5 PCT
+/-.001PCT
+/-.001PCT
+/-.1 PCT
+/-.1 PCT
+/-.1 PCT
+/-.1 PCT
+/-.2 PCT
+/-.1 PCT
+/-.1 PCT

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
OR AS STATED

FAM TMOE
CODE ID NO. PARAMETER

SPEC OTS ETE
NO MFR'S MOL NO TYPE DESIGNATOR/
MFR'S MODEL NO FSCM

FREQ RESPONSE 26800

107 9015 OVER ANY BAND NGT

+/-2DB

FREQ SHIFT 27000

107 9015 CARRIER SHIFT W/MOD FREQ NGT

.005 PCT

FREQ,STABILITY,TEMPERATUR 27220

107 9015 DRIFT NGT .01 PCT DURING 1 HOUR MIL-T-28800

IMPEDANCE,INPUT 34400

107 9015 600 CHMS

+/- 5 PCT

28480 107 2091 50 OHMS FOR PULSE-MOD,600 CHMS FOR AM

IMPEDANCE,OUTPUT 35200

107 9015 50 OHMS

SMAT
125
612A
6202

23340 107 8023 50 OHMS
12678 107 8024 50 OHMS
28480 107 8022 50 OHMS
25778 107 8025 50 CHMS

AN/URM-149 82199 107 0396 50 CHMS
AN/URM-49A 35225 107 0357 50 OHMS
AN/URM-56 01113 107 0361 50 OHMS
AN/USM-251 24655 107 0758 50 OHMS
AN/USM-312 24655 107 0522 50 OHMS

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

IMPEDANCE, OUTPUT 35200

SG-340A/U 28480 107 0849 50 OHMS

MODULATION VOLTAGE 42600

15 107 9015 AT 10KHZ DEV IN RANGE FROM 100HZ TO 15KHZ NGT +/-10 PCT

42601

15 107 9015 FROM VOLTAGE REQUIRED AT 1KHZ

OUTPUT SIGNALS 50000

6202 25778 107 8025 CM, AM & PM
82199 107 0396 CM & FM
35225 107 0356 PULSE, AM-MOD CR CM
35225 107 0357 PM, AM & CM RF
28480 107 2073 CM, FREQ STEPPING, OUTPUT LEVELING, DIGITAL SWEEP, FMS PULSE
8660B-001

SPURIOUS FREQ 68000

15 107 9015 30DB BELOW UNMODULATED CARRIER LEVEL

6202 25778 107 8025 LT 25 DB BELOW SIGNAL

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO HFR'S PDL NO TYPE DESIGNATOR/ HFR'S MODEL NO FSCM CODE ID NO. PARAMETER

SPURIOUS NOISE OUTPLT 68400

+/-108

107 9015 NGT 25KZ AT ANY FREQ

STANDING WAVE PATIO (SWR) 69600

107 9015 LT 2.0 TC 1

25778 107 8025 LT 2.1

82199 107 0396 1.5

VOLTAGE OUTPUT 85600

107 9015 RF NLT .5V RMS ACROSS 50 OHM LOAD

23340 107 8023 .75V
12678 107 8024 0-90V
28480 107 8022 .1UV TC .5V
03782 107 8021 2.2V ACROSS 50 OHM LOAD
25778 107 8025 7UV TO 5V

+/-15 PCT

82199 107 0396 100UV TC 100MV
35225 107 0356 200UV TC 200MV
35225 107 0357 200UV TC 200MV
01113 107 0361 1UV TO 500MV
24655 107 0758 0 TO 120MH
24655 107 0522 0 TO 140MH
28480 107 0849 100UV TC 500MV
94668 107 1642 50MV TC 55V

+/-1 PCT

APPENDIX E

SIGNAL GENERATOR, UHF-B

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Signal Generator, UHF-B" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table E-1 and other appropriate parts of this report.

Table E-1. SUPPORTING PUBLICATIONS FOR SIGNAL GENERATOR, UHF-B	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-3-1534 September 1976	Task 3A: Determination of the Set of Characteristics of TMDE Families
1073-01-6-1554R November 1976 (Revised January 1977)	Task 4/5A: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-11-1571 January 1977	Task 6A: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table E-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Signal Generator, UHF-B":

- TMDE Family Name: Signal Generator, UHF
- TMDE Family Code: 107
- OTS ETE Specification Number: 16

The TMDE Family for the Signal Generator, UHF was divided into two OTS ETE Specifications -- UHF-A (Instrument A) and UHF-B (Instrument B). This division covers the full UHF frequency spectrum and makes the specification competitive in the commercial market. This appendix presents Signal Generator, UHF-B, and Appendix D presented Signal Generator, UHF-A.

3. SUMMARY OF RECOMMENDATIONS

Table E-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of Signal Generator, UHF-B parameters reviewed, retained, added, deleted, modified, or subjected to other action are as follows:

- Reviewed 35
- Retained 31
- Added 2

Table E-2. SUMMARY OF PARAMETER ANALYSIS FOR SIGNAL GENERATOR UHF-B

Parameter Code	Parameter Name	Param-eters Listed			ARINC Research Analysis						CERCOM Comments				Remarks
		OTS ETE Spec	OTS ETE	USA TMDE	Retain	Add	Delete	Modify	Other	Concur	Add	Modify	Delete		
00100	Signal Generator, UHF-B	x	x	x	x										
00110	Dimensions in cm/in.	x	x	x	x										
00120	Weight in kg/lb.	x	x	x	x										
00130	Enclosure Style	x	x	x	x										
00140	Power Source (s)/Consumption	x	x	x	x										
00150	MTBF	x			x										
00160	Readout Method		x	x					x						
00170	Primary Input Connectors	x			x										
00200	Environmental Conditions	x			x										
00210	Temperature, Operating/Nonoperating	x			x										
00220	Relative Humidity	x			x										
00230	Altitude, Operating/Nonoperating	x			x										
00250	Shock Level	x			x										
01200	Amp Mod - Ext	x	x	x				x							
01230	Amp Mod - Ext, Sensitivity	x			x										
01600	Amplitude Modulation - Internal	x	x	x	x										
01640	Amp Mod - Internal, Distortion	x			x										
01650	Amp Mod - Int, Spurious Mod	x			x										
03600	Attenuation Output	x			x										
19600	FM Internal Distortion	x			x										

(continued)

Table E-2. (continued)

[illegible]

- Deleted 0
- Modify 1
- Other Action 1

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters considered in this analysis and summarized in Table E-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

SIGNAL GENERATOR, UHF-B

Narrative:

This parameter is common to both OTS ETE and TMDE equipment names.

Conclusion:

The OTS ETE and TMDE are common to the OTS ETE Specification.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/in

Narrative:

The OTS ETE dimensions are within the constraints of the OTS ETE Specification.

Conclusion:

The OTS ETE is compatible with the OTS ETE Specification and promotes competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

The OTS ETE parameters are compatible with the OTS ETE Specification.

Conclusion:

The majority of the OTS ETE are within the parameter specified in the OTS ETE Specification, which will provide adequate competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00130

ENCLOSURE STYLE

Narrative:

Three (3) OTS ETE are compatible with this parameter.

Conclusion:

The compatibility of the OTS ETE to the OTS ETE Specification provides for competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00140

POWER SOURCE(S)/CONSUMPTION

Narrative:

The OTS ETE and TMDE are common to the OTS ETE Specification.

Conclusion:

The compatibility of the OTS ETE to the OTS ETE Specification provides OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00150

MTBF

Narrative:

OTS ETE and TMDE Source Documents do not indicate the of the listed items. However, the MTBF for the OTS ETE Specification was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA-18-72-A-0005, Delivery Order 0007.

Conclusion:

Based on available data, the MTBF specified appears to be reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
00160	READOUT METHOD
Narrative:	There are various readout methods employed by the ETE industry and the TMDE.
Conclusion:	The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.
Recommendation:	A specific readout method should not be specified.
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
00170	PRIMARY INPUT CONNECTORS
Narrative:	No data available to make a comparative analysis of this parameter.
Conclusion:	The connectors specified are common to this type of equipment.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
00200	ENVIRONMENTAL CONDITIONS
00210	TEMPERATURE OPER/NON-OPER
00220	RELATIVE HUMIDITY
00230	ALTITUDE OPER/NON-OPER
00240	VIBRATION LIMIT
00250	SHOCK LEVEL
Narrative:	Information on these parameters for OTS ETE and TMDE is insufficient to analyze.
Conclusion:	These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

01200

AMP MOD EXT

Narrative:

The OTS ETE and TMDE greatly exceed the specification frequency spectrum.

Conclusion:

The available OTS ETE and TMDE data indicate that a greater frequency range exists for external modulation input.

Recommendation:

Modify specification to read: 0 to 1 MHz sine or square wave external amplitude modulation.

CERCOM Comments:

Parameter Number

Parameter Name

01230

AMP MOD-EX, SENSITIVITY

Narrative:

No data available for comparative analysis.

Conclusion:

This parameter is essential for proper modulation percentage from external modulation sources.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01600

AMPLITUDE MODULATION - INTERNAL

Narrative:

The OTS ETE is compatible with the OTS ETE Specification whereas the available TMDE data listed pulse modulation. See parameter 56400.

Conclusion:

The OTS ETE common base to the OTS ETE Specification with AM and square wave modulation indicates enhancement capabilities as well as promotion of OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01640

AM INTERNAL DISTORTION

Narrative:

No data available for this parameter to make a comparative analysis.

Conclusion:

Internal amplitude distortion is a function of modulation sensitivity and is essential for frequency stability.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01650

AM SPURIOUS MODULATION

Narrative:

There was no data available for this parameter.

Conclusion:

This parameter, if unchecked, will degrade the function of FM deviation and will degrade the FM signal.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

03600

ATTENUATION OUTPUT

Narrative:

There was no OTS ETE data listed for this parameter. The TMDE data listed a common base to the OTS ETE Specification.

Conclusion:

The attenuation output control is essential to signal level output control.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

19600

FM INTERNAL DISTORTION

Narrative:

No data available for OTS ETE and TMDE parameter.

Conclusion:

Internal FM distortion is a function of modulation and deviation sensitivity and essential for frequency stability.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26020

FREQUENCY MODULATION

Narrative:

No data available.

Conclusion:

This parameter addresses deviation which is a function of frequency modulation and is an essential component of the FM process.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26440

FREQUENCY MODULATION SPURIOUS SIGNAL

Narrative:

There was no data available for a comparative analysis.

Conclusion:

This parameter is a function of frequency and essential for frequency stability under vibration stress. However, since neither the Army TMDE nor the OTS ETE list this parameter, it may require removal from the specification.

Recommendation:

Retain as specified

CERCOM Comments:

Parameter NumberParameter Name

26600

FREQUENCY RANGE

Narrative:

The OTS ETE and TMDE are compatible with the OTS ETE Specification.

Conclusion:

The compatibility of the OTS ETE provides for good OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter NumberParameter Name

26800

FREQUENCY RESPONSE

Narrative:

There was no data for OTS ETE and TMDE.

Conclusion:

This parameter is a function of frequency level and stability and is essential to maintain a stable signal source.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter NumberParameter Name

27000

FREQUENCY SHIFT

Narrative:

There was no data available for a comparative analysis of this parameter.

Conclusion:

Carrier shift with modulating frequencies must be maintained at a minimum for proper frequency modulation and stability.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

27220

FREQUENCY STABILITY UNDER TEMPERATURE

Narrative:

There was no data available for a comparative analysis of this parameter.

Conclusion:

Frequency drift of a signal source must be stable within a reasonable warm-up time. This parameter is essential for signal source stability.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

34400

IMPEDANCE INPUT

Narrative:

One (1) OTS ETE listed this parameter.

Conclusion:

There is inconclusive data available for a comparison analysis; however, this parameter is common to other signal source inputs.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

35200

IMPEDANCE OUTPUT

Narrative:

The available OTS ETE and TMDE data show a common base to the OTS ETE Specification.

Conclusion:

The common base of OTS ETE indicates there will be adequate competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

42600

MODULATION VOLTAGE

Narrative:

There was no data available for a comparative analysis.

Conclusion:

This parameter is an essential function of voltage modulation level for the deviation levels selected. It assures a common voltage level for FM at different frequencies.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

56000

PULSE MOD (PM) - EX

Narrative:

Two (2) OTS ETE and two (2) TMDE listed the external pulse capability.

Conclusion:

The OTS ETE Specification does not include this parameter. It should be added as a specification to meet the TMDE requirement.

Recommendation:

Include this parameter in the OTS ETE Specification.

CERCOM Comments:

Parameter Number

Parameter Name

56400

PULSE MODULATION (PM) INTERNAL

Narrative:

The majority of TMDE listed this parameter.

Conclusion:

The OTS ETE Specification does not include this parameter. It should be added as a specification to meet the TMDE requirement.

Recommendation:

Include this parameter in the OTS ETE Specification.

CERCOM Comments:

Parameter Number

Parameter Name

68000

SPURIOUS FREQUENCY

Narrative:

There was no data available.

Conclusion:

This parameter is a function of RF signal output and essential to maintain spurious harmonics below specified levels for proper signal integrity.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

68400

SPURIOUS NOISE OUTPUT

Narrative:

There was no data available.

Conclusion:

Spurious FM on unmodulated carrier is a function of modulation and carrier level, which must be maintained at a minimum level.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

69600

STANDING WAVE RATIO (SWR)

Narrative:

Only One (1) OTS ETE and One (1) TMDE listed this parameter.

Conclusion:

There was insufficient data for conclusive analysis; however, this parameter is essential for the proper signal transfer from signal source to equipment under test or alignment.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

85600

VOLTAGE OUTPUT

Narrative:

OTS ETE and TMDE voltage output are compatible with the OTS ETE Specification.

Conclusion:

There appears to be adequate competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7), "Definitization of OTS ETE Specification", for the Signal Generator, UHF-B OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 5 OTS ETE, and 14 Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF QTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-6

ACCURACY - PCT -
OR AS STATED

SPEC QTS EYE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSC# FAN TYPE CODE ID NO. PARAMETER

00100

16

107 9016 SIGNAL GENERATOR UHF

SLPD
11058
125
6301
8614

23340 107 8030 SIGNAL GENERATOR
82199 107 8028 SIGNAL GENERATOR
12678 107 8029 SIGNAL GENERATOR
25778 107 8026 SIGNAL GENERATOR
28480 107 8027 SIGNAL GENERATOR

AN/URN-64-1
AN/URN-64-2
AN/URN-64A-1
AN/URN-64A-2
AN/URN-213
AN/USM-213A
L7006
SC-97/FRC
TS-419/U
12058F
1205F
185008
473A-1800
86602A

76809 107 0363 GENERATOR SIGNAL
76809 107 0364 GENERATOR SIGNAL
03877 107 0365 GENERATOR SIGNAL
03877 107 0366 GENERATOR SIGNAL
28480 107 0477 GENERATOR SIGNAL
28480 107 0478 GENERATOR SIGNAL
77327 107 3275 GENERATOR SIGNAL
28480 107 0837 GENERATOR SIGNAL
82199 107 1012 GENERATOR SIGNAL
82199 107 1713 MODULAR PICKUP WAVE SIGNAL SOURCE
99899 107 1827 SIGNAL GENERATOR MICROWAVE
94668 107 2581 GENERATOR SIGNAL
28480 107 1861 GENERATOR SIGNAL
28480 107 2090 RF SECTION

DIMENSIONS IN CM/INS 00110

16

107 9016 50CM(15IN)X31.5CM(12IN)X52.5CM(20IN)D

11058
125
6301
8614

82199 107 8028 13CM(5IN)X43CM(17IN)X48CM(19IN)D
12678 107 8029 30CM(12IN)X50CM(20IN)X50CM(20IN)D
25778 107 8026 43CM(17IN)X25CM(10IN)X53CM(21IN)D
28480 107 8027 43CM(17IN)X14CM(6IN)X47CM(18IN)D
28480 107 8027 43CM(17IN)X14CM(6IN)X47CM(18IN)D

AN/URN-64-1
AN/URN-64-2
AN/URN-64A-1
AN/URN-64A-2
AN/USM-213

76809 107 0363 35.56CM(14IN)X32.39CM(12.75IN)X45.72CM(18IN)D
76809 107 0364 35.56CM(14IN)X32.39CM(12.75IN)X45.72CM(18IN)D
03877 107 0365 35.56CM(14IN)X32.39CM(12.75IN)X45.72CM(18IN)D
03877 107 0366 35.56CM(14IN)X32.39CM(12.75IN)X45.72CM(18IN)D
28480 107 0477 42.55CM(16.75IN)X13.97CM(5.5IN)X46.67CM(18.38IN)D

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-8

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO. MFR'S MDL NO. TYPE DESIGNATOR/ MFR'S MDL NO. FSCM CODE ID NO. PARAMETER

DIMENSIONS IN CM/INS 00110

AN/USM-213A 28480 107 0478 42.55CM(16.75IN)HX13.97CM(5.51IN)HX46.67CM(18.38IN)D
 SG-97/FPC 28480 107 0837 34.29CM(13.5IN)HX23.66CM(9.31IN)HX43.18CM(17.1IN)D
 TS-419/U 82199 107 1012 34.29CM(13.5IN)HX43.62CM(17.25IN)HX36.61CM(13.63IN)D
 12058F 82199 107 1713 42.55CM(16.75IN)HX13.34CM(5.25IN)HX48.26CM(19.1IN)D
 1205F 82199 107 1827 42.55CM(16.75IN)HX13.34CM(5.25IN)HX43.19CM(17.1IN)D
 185008 99899 107 2581 50.80CM(20.1IN)HX50.80CM(20.1IN)HX24.13CM(9.51IN)D
 473A-1800 94668 107 1861 25.40CM(10.1IN)HX9.53CM(3.75IN)HX46.99CM(18.51IN)D

WEIGHT IN KG/LBS 00120

16

107 9016 27KG(60LBS)
 82199 107 8028 20KG(43LBS)
 12678 107 8029 55KG(120LBS)
 25778 107 8026 30KG(65LBS)
 28480 107 8027 20KG(43LBS)

11058
 125
 6301
 8614

AN/URM-64-1 76809 107 0363 24.52KG(54LBS)
 AN/URM-64-2 76809 107 0364 24.52KG(54LBS)
 AN/URM-64A-1 03877 107 0365 24.52KG(54LBS)
 AN/URM-64A-2 03877 107 0366 24.52KG(54LBS)
 AN/USM-213 28480 107 0477 19.98KG(44LBS)
 AN/USM-213A 28480 107 0478 17.25KG(38LBS)
 SG-97/FPC 28480 107 0837 26.79KG(59LBS)
 TS-419/U 82199 107 1012 22.7KG(50LBS)
 12058F 82199 107 1713 18.61KG(41LBS)
 1205F 82199 107 1827 18.61KG(41LBS)
 185008 99899 107 2581 38.59KG(85LBS)
 473A-1800 94668 107 1861 16.34KG(36LBS)
 86602A 28480 107 2090 4.09KG(9LBS)

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-B

SPEC OTS ETE NO MFR'S MOD NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

ACCURACY -PCT-
OR AS STATED

ENCLOSURE (STYLE) 00130

16 107 9016 MIL-T-28800B STYLE E W/RACKMOUNT CAPABILITY

11058
6301
8614

82199 107 8028 RACK MOUNT CAPABILITY
25778 107 8026 RACK MOUNT CAPABILITY
28480 107 8027 RACK CAPABILITY

AN/USM-213
L7006
86602A

28480 107 0477 RACK MOUNT CAPABILITY
77327 107 3275 PLUG-IN UNIT
28480 107 2090 PLUG-IN USED W/HP-86608 MAIN FRAME

PWR SOURCE(S)/CONSUMPTION 00140

16 107 9016 TYPE III 50,60 AND 400HZ SINGLE PHASE 115/230VAC/240W

11058
125
8614

82199 107 8028 50-60HZ S-PHASE 115/230VAC/240W
12678 107 8029 50-60HZ S-PHASE 115/230VAC/400W
28480 107 8027 50-60HZ S-PHASE 115-230VAC/125W

AN/URN-64-1
AN/URN-64-2
AN/URN-64A-1
AN/URN-64A-2
AN/USM-213
AN/USM-213A
L7006
SG-97/ERC
TS-419/U
12058F
1205F
470A-1800

76809 107 0363 50-1000HZ S-PHASE 115VAC/150W
76809 107 0364 50-1000HZ S-PHASE 115VAC/150W
03877 107 0365 50-1000HZ S-PHASE 115VAC/150W
03877 107 0366 50-1000HZ S-PHASE 115VAC/150W
28480 107 0477 50-60HZ S-PHASE 115/230VAC/125W
28480 107 0478 50-60HZ S-PHASE 115/230VAC/125W
77327 107 3275 PWR PROVIDED BY MAIN FRAME MODEL 816-510 (PRC)
28480 107 0837 50-400HZ S-PHASE 115/230VAC/160W
107 1012 50-1600HZ S-PHASE 115VAC/150W
82199 107 1713 400HZ S-PHASE 110VAC/240W
82199 107 1827 50-400HZ S-PHASE 115/230VAC/195W
94668 107 1861 50-60HZ S-PHASE 115VAC

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-8

SPEC QTS ETE NO WFR'S MCL NJ TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CCDE ID NC. PARAMETER FAM TMDE

ACCURACY -PCT-
CR AS STATED

MTBF SPECIFIED/PREDICTED 00150

16

107 9016 2000 HRS

READOUT METHOD(S) 00160

11058
125

82199 107 8028 METER VIA VERNIER DIAL
12878 107 8029 METER VIA DIGITAL DIAL SELECT

AN/URM-64-1
AN/URM-64-2
AN/URM-64A-2
AN/USM-213
AN/USM-213A
SG-97/FRC
TS-419/U
1205F
185008
470A-1800
86602A

76809 107 0363 DIAL
76809 107 0364 DIAL
03877 107 0366 DIAL
28480 107 0477 DIGITAL METER
28480 107 0478 DIGITAL DIAL
28480 107 0837 DIAL METER
107 1012 DIAL METER
82199 107 1827 CRT & GAGE
99899 107 2581 DIGITAL METER
94668 107 1861 DIAL METER
28480 107 2090 METER

PRIMARY INPUT CONNECTOR(S) 00170

16

107 9016 BMC SERIES, RF N-SERIES

ENVIRONMENTAL CONDITIONS 00200

16

107 9016 MIL-T-28800B TYPE III CLASS S, STYLE E, COLUP R

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-B

ACCURACY - PCT -
LR AS STATED

SPEC QTS ETE NO MFR'S MCL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CCDF ID NC. PARAMETER

TEMP OPER/NON-OPERATING 00210

16 107 9016 U TO 50C/-55 TC 75C

RELATIVE HUMIDITY 00220

16 107 9016 95(+5-01)

ALTITUDE OPER/NON-OPER 00230

16 107 9016 3050M(10000FT)/12000M(40000FT)

VIBRATION LIMIT (MAXIMUM) 00240

16 107 9016 2G

SHOCK, PULSE LEVEL 00250

16 107 9016 30G

AMP MOD-EX 01200

16 107 9016 20HZ TC 20KHZ BY SINE CR SQ WAVE EXT 1M

125 12678 107 8029 SQ-WAVE
8614 28480 107 8027 DC TC 1MHz

AN/USM-213 28480 107 0477 0 TO 1MHz
AN/USM-213A 28480 107 0478 0 TO 1MHz

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-B

ACCURACY -PCT-
OR AS STATED

FAM TYPE
CODE ID NC. PARAMETER

SPEC OTS ETE TYPE DESIGNATION/
NO MFR'S MDL NO MFR'S MODEL NO FSCM

AMP MOD-EX, SENSITIVITY 01230

16 107 9016 NCT 5V P/P SINE OR SQ-WAVE TO PRODUCE 90 PCT MOD

AMP MOD-INT 01600

16 107 9016 SELECTIVE BETWEEN 400-1000HZ SINE & SQ-WAVE 10+ PCT

SLRD 23340 107 8030 1KHZ SQ WAVE
11058 82199 107 8028 800HZ TO 1200HZ INTERNAL
125 12678 107 8029 1000HZ INTERNAL
6301 25778 107 8026 50-HZ TO 10KHZ SQ-WAVE
8614 28480 107 8027 950 TO 1050 SQ-WAVE

28480 107 0478 930 TO 105CHZ SQ-WAVE
94668 107 1861 100HZ TO 100KHZ

AMP MOD-INT, DISTORTION 0164C

16 107 9016 DISTORTION OF AM CARRIER NCT TO EXCEED 2 PCT

AMP MOD-INT, SPURRICLS MOD 01650

16 107 9016 AT ANY FREQ AND DEV SET AT 40KHZ SPURIOUS AM NGT 5 PCT

ATTENUATION, OUTPUT 03600

16 107 9016 RANGE NLT 100DB W/10CB VERNIER DIAL AT 108 STEPS +/- .208

AN/URM-64-1 76809 107 0363 0 TO -120DBM
AN/URM-64-2 76809 107 0364 0 TO -120DBM
AN/URM-64A-1 03877 107 0365 0 TC -120DBM

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UNF-B

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO WFR'S MDL NO TYPE DESIGNATOR/ WFR'S MODEL NO FSCM CODE ID NC. PARAMETER

ATTENUATION, OUTPUT 03600

AN/URM-644-2 03877 107 0366 0 TO -1200PM
AN/USM-213 28490 107 0477 0 TO -1270PM
SG-97/ERC 28480 107 0837 0 TO -1270PM
TS-419/U 107 1012 +10 TO -1460PM

DISTORTION, INTERNAL 19600

2 PCT

107 9016 MOD SIGNAL DISTORTION ON ALL FREQ NGT

FREQ MOD 26020

107 9016 INT & EXT 3 TO 300KHZ DEV CAPABILITY

FREQ MOD-INT, SPURICLS AMP 26440

107 9016 WHEN VIBRATED-NGT 200KHZ DEVIATION AT 900/1630/2200MHZ

FREQ RANGE 26600

+/-2 PCT

107 9016 800MHZ TC 2.4GPHZ W/NMT 5 BANDS

SLRD 23340 107 8030 275MHZ TC 2.75GPHZ
11058 82199 107 8028 800-2400MHZ
125 12678 107 8029 200-3000MHZ
6301 25778 107 8026 800MHZ TC 2GPHZ
8614 28480 107 8027 800 TO 2400MGH

+/-0.001PCT
+/-0.001PCT
+/-0.001PCT
+/-5 PCT

IN 1 RANGE
IN 1 RANGE
IN 1 RANGE
IN 1 RANGE

AN/URM-64-1 76809 107 0363 900MHZ TC 2.1GPHZ
AN/URM-64-2 76809 107 0364 900MHZ TC 2.1GPHZ
AN/URM-64A-2 03877 107 0366 900MHZ TC 2.1GPHZ
AN/USM-213 28480 107 0477 800MHZ TO 2.4GPHZ

DEFINITION OF DTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-B

ACCURACY -PCT -
OR AS STATED

FAM TCCE
CCDE ID NC. PARAMETER

TYPE DESIGNATOR/
MFR'S MODEL NO FSCM

NO MFR'S MDL NO

FREQ RANGE 26600

IN 1 RANGE
IN 1 RANGE
IN 1 RANGE
IN 1 RANGE
IN 1 RANGE
IN 1 RANGE

800MHZ TC 2.4GHZ
1 TO 2GHZ
800MHZ TC 2.1GHZ
900MHZ TO 2.1GHZ
800MHZ TO 2.4GHZ
95MHZ TC 2.4GHZ
920MHZ TO 1.25GHZ
1GHZ TC 1.8GHZ
1GHZ TC 1.299GHZ

AN/USM-213A
L7006
SG-97/FRC
TS-419/U
1205BF
1205F
18500B
470A-1800
86602A

28480 107 0478
77327 107 3275
28480 107 0837
82199 107 1012
82199 107 1713
95899 107 1827
94668 107 2581
28480 107 2090

FREQ RESPONSE 26800

+/-5 PCT
+/-2 PCT
+/-1 PCT
+/-5 PCT
+/-1 PCT
+/-1 PCT

107 9016 FREQ OUTPUT LEVEL VARIATION NGT +/-1DB ON ANY BAND

16

FREQ SHIFT 27000

16

-005 PCT

107 9016 CARRIER SHIFT W/MOD FREQ NGT

16

FREQ STABILITY, TEMPERATURE 27220

16

107 9016 FREQ DRIFT NGT .01 PCT AFTER 1 HR WARM UP

16

IMPEDANCE, INPUT 34400

16

+/-5 PCT

107 9016 600 OHM AM INPLT

16

25778 107 8026 600 OHMS

6301

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-B

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

IMPEDANCE-OUTPUT 35200

16

107 9016 50 OHMS

11058
125
6301

82199 107 8028 50 OHMS
12678 107 8029 50 OHMS
25778 107 8026 50 OHMS

AN/URN-64-1
AN/URN-64-2
AN/USM-213A
SG-97/FRC
TS-419/U

76809 107 0363 50 OHMS
76809 107 0364 50 OHMS
28480 107 0478 50 OHMS
28480 107 0837 50 OHMS
107 1012 50 OHMS

MODULATION VOLTAGE 42600

16

+/-10 PCT

107 9016 DIFFERENCE BETWEEN 10KHZ & 1KHZ DEV SHOULD NOT VARY

PULSE MOD (PM)-EX 56000

SLPD
125

23340 107 8030 PULSE MOD
12678 107 8029 PULSE MOD

AN/USM-213
AN/USM-213A

28480 107 0477 50HZ TC 500KHZ PPS
28480 107 0478 PULSE MOD

PULSE MOD (PM)-INT 56400

6301

25778 107 8026 PULSE MOD

AN/URN-64-1
AN/URN-64-2
AN/URN-64A-1
AN/URN-64A-2

76809 107 0363 40-4000PPS
76809 107 0364 40-4000PPS
03877 107 0365 40-4000PPS
03877 107 0366 40 TC 4000PPS

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UHF-8

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MDL NO FSCM CODE TO NC. PARAMETER

PULSE MOD (PM)-INT 5640C

28480 107 0477 800 TO 1200HZ PULSE
28480 107 0837 40 TO 4000PPS
99899 107 1012 40 TO 4000PPS
99899 107 2581 PULSE MCC

SPURIOUS FREQ 68000

16 107 9016 3008 BELOW LEVEL OF UNMODULATED CARRIER

SPURIOUS NOISE OUTPUT 68400

16 107 9016 NGT 25HZ AT ANY FREQ

+/-108

STANDING WAVE RATIO (SWR) 69600

16 107 9016 LT 2.0 TC 1

11058 82199 107 8028 2 TO 1

28480 107 0837 1.4

VOLTAGE OUTPUT 85600

16 107 9016 RF NLT .5V RMS ACROSS 50 OHM LOAD

SLRD 23340 107 8030 0-41V
11058 82199 107 8028 .22V
125 12678 107 8029 0-67V
8614 28480 107 8027 .78V AT 50 OHM LOAD

AN/URM-64-1 76809 107 0363 200UM

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR UNF-B

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

VOLTAGE, OUTPUT 85600

AN/URM-64-2	76809	107	0364	.20V TC .16V
AN/URM-64A-1	03877	107	0365	.160V TC .20V
AN/URM-64A-2	03877	107	0366	200UV TC 160MV
AN/USM-213	28480	107	0477	100UV TC 700MV
AN/USM-213A	28480	107	0478	100UV TC 700MV
SG-97/FRC	28480	107	0837	100UV TC 158MV
TS-419/U		107	1012	40 TC 70V
1205F	82199	107	1827	50MV TC 126MV
470A-1800	94668	107	1861	70MV TC 35V

APPENDIX F

SIGNAL GENERATOR, VHF-A

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Signal Generator, VHF-A" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table F-1 and other appropriate parts of this report.

Table F-1. SUPPORTING PUBLICATIONS FOR SIGNAL GENERATOR, VHF-A	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-3-1534 September 1976	Task 3A: Determination of the Set of Characteristics of TMDE Families
1073-01-6-1554R November 1976 (Revised January 1977)	Task 4/5A: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-11-1571 January 1977	Task 6A: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table F-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Signal Generator, VHF-A":

- TMDE Family Name: Signal Generator, VHF
- TMDE Family Code: 106
- OTS ETE Specification Number: 17

The TMDE Family for the Signal Generator, VHF was divided into two OTS ETE Specifications -- VHF-A (Instrument A) and VHF-B (Instrument B). This division covers the full VHF frequency spectrum and makes the specification competitive in the commercial market. This appendix presents Signal Generator, VHF-A, and Appendix G presents Signal Generator, VHF-B.

3. SUMMARY OF RECOMMENDATIONS

Table F-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of Signal Generator, VHF-A parameters reviewed, retained, added, deleted, modified, or subjected to other action are as follows:

- Reviewed 34
- Retained 33
- Added 0

Table F-2. SUMMARY OF PARAMETER ANALYSIS FOR SIGNAL GENERATOR, VHF-A

Parameter Code	Parameter Name	Parameters Listed			ARINC Research Analysis						CERCOM Comments				Remarks
		OTS ETE Spec	OTS ETE	USA TMDE	Retain	Add	Delete	Modify	Other	Concur	Add	Modify	Delete		
00100	Signal Generator, VHF-A	x	x	x	x										
00110	Dimensions in cm/in.	x	x	x	x										
00120	Weight in kg/in.	x	x	x	x										
00130	Enclosure Style	x	x	x	x										
00140	Power Source/Consumption	x	x	x	x										
00150	MTBF	x			x										
00160	Readout Method		x	x					x						
00170	Primary Input Connectors	x	x		x										
00200	Environmental Conditions	x			x										
00210	Temperature, Operating/Nonoperating	x			x										
00220	Relative Humidity	x			x										
00230	Altitude, Operating/Nonoperating	x			x										
00240	Vibration Limit	x			x										
00250	Shock Level	x			x										
01200	Amplitude Modulation - External	x	x	x	x										
01230	AM External Sensitivity	x			x										
01600	Amplitude Modulation - Internal	x	x	x	x										
01620	AM Internal Percent Modulation	x	x		x										
01640	AM Internal Distortion	x	x		x										
03600	Attenuation Output	x	x	x	x										

(continued)

Table F-2. (continued)

[illegible]

- Deleted 0
- Modify 0
- Other Action 1

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all the technical parameters considered in this analysis and summarized in Table F-2. After each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

SIGNAL GENERATOR, VHF

Narrative:

The specification's name is common to the OTS ETE names.

Conclusion:

The OTS ETE and TMDE names are common to the OTS ETE Specification.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/ins

Narrative:

The OTS ETE is compatible with the OTS ETE Specification.

Conclusion:

No changes to the specification are required.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

The OTS ETE is compatible with the OTS ETE Specification.

Conclusion:

The OTS ETE Specification provides for competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00130

ENCLOSURE STYLE

Narrative:

The OTS ETE is compatible with the OTS ETE Specification.

Conclusion:

The OTS ETE Specification provides for competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00140

POWER SOURCE/CONSUMPTION

Narrative:

The OTS ETE and TMDE are compatible with the OTS ETE Specification.

Conclusion:

This compatibility indicates competition among OTS ETE manufacturers and it meets the Army TMDE requirements.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00150

MTBF

Narrative:

OTS ETE and TMDE Source Documents do not indicate the MTBF of the listed items. However, the MTBF for the OTS ETE Specification was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA-18-72-A-0005, Delivery Order 0007.

Conclusion:

Based on the available data, the MTBF specified appears to be reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter NumberParameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods employed by the ETE industry and the TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A specific readout method should not be specified.

CERCOM Comments:

Parameter NumberParameter Name

00170

PRIMARY INPUT CONNECTORS

Narrative:

One (1) OTS ETE listed this parameter.

Conclusion:

There is insufficient data for comparative analysis. However, this type connector is common to this equipment type.

Recommendation:

Retain As Specified

CERCOM Comments:

Parameter NumberParameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ALTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01200

AMPLITUDE MODULATION - EXTERNAL

Narrative:

The OTS ETE and TMDE data are compatible with the OTS ETE Specification.

Conclusion:

The common base of OTS ETE and TMDE to the specification suggests good competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01230

AM EXTERNAL SENSITIVITY

Narrative:

There was no data available for a comparative analysis.

Conclusion:

The voltage level required for a discriminate modulation percentage is essential.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01600

AMPLITUDE MODULATION - INTERNAL

Narrative:

The OTS ETE and TMDE are comparable with the OTS ETE Specification. Combined with the parameter 01200, the Army requirements can be met.

Conclusion:

The common base to OTS ETE Specification suggests adequate OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01620

AM INT PERCENT MOD

Narrative:

One (1) OTS ETE is common to the OTS ETE Specification.

Conclusion:

The parameter characteristic required for proper modulation level percentage is essential.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

01640

AM INTERNAL DISTORTION

Narrative:

Only one (1) OTS ETE listed this parameter, which is compatible with the OTS ETE Specification.

Conclusion:

This parameter is a function of the frequency and is essential for stability and sensitivity.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

03600

ATTENUATION OUTPUT

Narrative:

One (1) OTS ETE and two (2) TMDE listed this parameter.

Conclusion:

There is insufficient data to make a comparative analysis. This parameter is essential for selective output level control and should be retained.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
19600	DISTORTION, INTERNAL
Narrative:	There was no data available for comparative analysis.
Conclusion:	This parameter is a function of FM deviation and essential for FM integrity.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
26020	FREQUENCY MODULATION
Narrative:	One (1) OTS ETE and three (3) TMDE are common to the OTS ETE Specification.
Conclusion:	Deviation is a function of frequency modulation; although not listed, there should be no problem for OTS ETE competition to meet TMDE requirements.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
26440	FREQUENCY MODULATION - INTERNAL, SPURIOUS AM
Narrative:	No data available for comparative analysis.
Conclusion:	Spurious AM will adversely affect FM deviation and must be minimized for proper frequency modulation.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

26600

FREQUENCY RANGE

Narrative:

The OTS ETE lists a common base with the OTS ETE Specification. The TMDE lists wide variations to this parameter; however, the majority are within the frequency range of the specification.

Conclusion:

The OTS ETE's common base and greater frequency spectrum affords competition among OTS ETE manufacturers and meets U.S. Army requirements.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26800

FREQUENCY RESPONSE

Narrative:

No data available.

Conclusion:

This parameter is a function of frequency where level and stability through all ranges are essential for proper frequency output.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

27200

FREQUENCY STABILITY

Narrative:

No data available.

Conclusion:

This parameter is a function of frequency and is an essential consideration for frequency stability and output.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
27220	FREQUENCY STABILITY - TEMPERATURE
Narrative:	The listed OTS ETE are common to the OTS ETE Specification base.
Conclusion:	The common base to the OTS ETE Specification suggests competition among OTS ETE manufacturers.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
34400	IMPEDANCE INPUT
Narrative:	Four (4) of the five (5) OTS ETE are common to the OTS ETE Specification.
Conclusion:	The common base indicates competition among OTS ETE manufacturers and meets U. S. Army requirements.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
35200	IMPEDANCE OUTPUT
Narrative:	The OTS ETE and TMDE are common to the OTS ETE Specification.
Conclusion:	The common base of OTS ETE indicates OTS ETE manufacturer competition.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

42600

MODULATION VOLTAGE

Narrative:

No data available.

Conclusion:

This parameter is a function of modulation and essential for stable level input for selective deviation.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

68000

SPURIOUS FREQUENCY

Narrative:

The OTS ETE listed are common to the OTS ETE Specification. No TMDE data available.

Conclusion:

The total harmonic content below unmodulated signal is a significant parameter for frequency integrity. It offers OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

68400

SPURIOUS NOISE OUTPUT

Narrative:

No data available.

Conclusion:

This parameter is essential for frequency integrity.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

69600

STANDING WAVE RATIO (SWR)

Narrative:

The available data indicate the OTS ETE and TMDE are common to the OTS ETE Specification.

Conclusion:

This parameter is a function of frequency output level and essential for proper level input for equipments under test.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

85600

VOLTAGE OUTPUT

Narrative:

The OTS ETE is common to the OTS ETE Specification, with the TMDE generally equal to the common base.

Conclusion:

The OTS ETE common base offers competition among OTS ETE manufacturers and meets the majority of the Army requirements as indicated by the TMDE.

Recommendation:

Retain as Specified

CERCOM Comments:

5. SUPPORTING DATA

This section contains a reproduction of the computer printout Number 7 (CP-7) "Definitization of OTS ETE Specification", for the Signal Generator, VHF-A OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 5 OTS ETE, and 26 Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF DTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
OR AS STATED

SPEC DTS ETE NO MFR'S MCL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

00100

17

106 9017 SIGNAL GENERATOR VHF

102C
3001
6303
7501
86408

04901 106 8032 SIGNAL GENERATOR
23338 106 8033 SIGNAL GENERATOR
25778 106 8034 SIGNAL GENERATOR
33013 106 8035 SIGNAL GENERATOR
28480 106 8031 SIGNAL GENERATOR

AN/JRM-109
AN/JRM-48
AN/JRM-70
AN/JRM-252
AN/JRM-44
AN/JRM-44A
AN/JRM-44B
M185-4
M186-4
SG-1038/U
SG-12/U
SG-309/ERC-47
SG-867/U
SG-969/U
SG-975/U
TF-1766A
TF-1247
10668/6
12158
202E
5105A/51108
608CR
608CR(MCD)
603E
8654A
8708A

79330 106 0388 GENERATOR SIGNAL
15196 106 0355 GENERATOR SIGNAL
07450 106 0367 GENERATOR SIGNAL
24655 106 0487 GENERATOR SIGNAL
28480 106 0421 GENERATOR SIGNAL
28480 106 0422 GENERATOR SIGNAL
28480 106 0423 GENERATOR SIGNAL
16469 106 3277 GENERATOR RF POWER PLUG-IN
16469 106 3278 GENERATOR RF POWER PLUG-IN
28480 106 0894 GENERATOR SIGNAL
15196 106 0822 GENERATOR SIGNAL
28480 106 0843 GENERATOR SIGNAL
98329 106 0880 GENERATOR SIGNAL
28480 106 0883 VHF SIGNAL GENERATOR
28480 106 0885 GENERATOR SIGNAL
09553 106 1612 SIGNAL GENERATOR
09553 106 1920 OSCILLATOR
09553 106 1825 GENERATOR SIGNAL FM
24655 106 1829 OSCILLATOR UNIT
28480 106 1635 GENERATOR SIGNAL
28480 106 1846 SYNTHESIZER FREQUENCY
28480 106 3366 GENERATOR SIGNAL VHF
28480 106 3367 GENERATOR SIGNAL VHF
28480 106 1863 GENERATOR SIGNAL VHF
28480 106 1594 GENERATOR SIGNAL VHF
28480 106 2081 GENERATOR SIGNAL PLUG-IN SYNCHRONIZER

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
CR AS STATED

SPEC OTS ETE NO MER'S MDL NO TYPE DESIGNATOR/ MER'S MODEL NO FSCM CODE ID NC. PARAMETER

DIMENSIONS IN CM/INS 00110

17

102C	AN/URN-48	15196	106	0355	30.48CM(12IN)X30.48CM(12IN)X45.72CM(18IN)D
3001	AN/URN-70	0745C	106	0367	46.36CM(18.25IN)X52.71CM(20.75IN)X10.80CM(4.25IN)D
6303	AN/USM-252	24655	106	0487	20.32CM(8IN)X19.37CM(7.63IN)X22.86CM(9IN)D
750A	AN/USM-44	28480	106	0421	29.85CM(11.75IN)X35.48CM(13.97IN)X45.72CM(18IN)D
8640B	AN/USM-44A	28480	106	0422	29.85CM(11.75IN)X35.48CM(13.97IN)X45.72CM(18IN)D
	AN/USM-44B	28480	106	0423	29.85CM(11.75IN)X35.48CM(13.97IN)X45.72CM(18IN)D
	P185-4	16469	106	3277	15.24CM(6IN)X25.56CM(10IN)X12.70CM(5IN)D
	#186-4	16469	106	3278	15.24CM(6IN)X25.56CM(10IN)X12.70CM(5IN)D
	SG-12/U	28480	106	0894	46.57CM(18.38IN)X17.46CM(6.88IN)X42.95CM(16.75IN)D
	SG-1038/U	15196	106	0822	30.48CM(12IN)X45.72CM(18IN)X30.48CM(12IN)D
	SG-309/GRC-47	28480	106	0843	48.26CM(19IN)X45.72CM(18IN)X53.34CM(21IN)D
	SG-867/U	98329	106	0880	17.15CM(6.75IN)X45.72CM(18IN)X25.40CM(10IN)D
	SG-969/U	28480	106	0883	33.66CM(13.25IN)X45.72CM(18IN)X25.40CM(10IN)D
	SG-975/U	28480	106	0885	16.51CM(6.50IN)X33.34CM(13.13IN)X19.49CM(7.68IN)D
	TF-1066A	09553	106	1612	59.69CM(23.5IN)X36.83CM(14.5IN)X26.67CM(10.5IN)D
	TF-1247	09553	106	1920	24.13CM(9.5IN)X35.56CM(14IN)X26.04CM(10.25IN)D
	10668/6	09553	106	1625	53.34CM(21IN)X38.10CM(15IN)X25.40CM(10IN)D
	12158	24655	106	1829	20.32CM(8IN)X25.13CM(9.5IN)X17.78CM(7IN)D
	202E	28480	106	1835	42.55CM(16.75IN)X26.04CM(10.25IN)X46.67CM(18.38IN)D
	5105A/5110B	28480	106	1846	42.55CM(16.75IN)X39.85CM(15.89IN)X41.59CM(16.38IN)D
	608CR	28480	106	1846	48.26CM(19IN)X45.72CM(18IN)X33.02CM(13IN)D
	608CR (MOD)	28480	106	3367	41.55CM(16.38IN)X45.72CM(18IN)X33.66CM(13.25IN)D
	608E	28480	106	1863	33.66CM(13.25IN)X45.72CM(18IN)X33.66CM(13.25IN)D
	8654A	28480	106	1594	26.59CM(10.47IN)X15.48CM(6.1IN)X27.94CM(11IN)D
	8708A	28480	106	2081	81.28CM(32IN)X46.67CM(18.38IN)X42.55CM(16.75IN)D

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY - PCT -
OR AS STATED

SPEC QTS ETE NO. WFR'S MOL NO. TYPE DESIGNATOR/ PFR'S MODEL NO. FSCM CODE ID NO. PARAMETER

WEIGHT IN KG/LBS 00120

17

106 9017 21KG(47LBS)

102C
3001
6303
750A
8640B

04901 106 8032 14KG(30LBS)
23338 106 8033 13KG(29LBS)
25778 106 8034 14KG(30LBS)
33013 106 8035 12KG(27LBS)
28480 106 8031 21KG(46LBS)

AN/URM-48
AN/URM-70
AN/USM-252
AN/USM-44
AN/USM-44A
AN/USM-44R
M135-4
SG-12/U
SG-309/GRC-47
SG-467/U
SG-969/U
SG-975/U
TF-1066A
TF-1247
10668/6
12158
202E
5105A/51108
608CR
608CR(MCO)
608E
8654A
8709A

15196 106 0355 48.12KG(106LBS)
07450 106 0367 23.13KG(51LBS)
24655 106 0487 3.29KG(7.25LBS)
28480 106 0421 47.67KG(105LBS)
28480 106 0422 47.67KG(105LBS)
28480 106 0423 47.67KG(105LBS)
16469 106 3277 4.54KG(10LBS)
15196 106 0822 32.69KG(72LBS)
28480 106 0842 28.15KG(62LBS)
58329 106 0880 16.80KG(37LBS)
28480 106 0883 28.15KG(62LBS)
28480 106 0885 7.72KG(17LBS)
09553 106 1612 24.52
09553 106 1920 10.44KG(23LBS)
09553 106 1825 24.52KG(54LBS)
24655 106 1829 3.41KG(7.5LBS)
28480 106 1635 20.43KG(45LBS)
28480 106 1846 64.01KG(141LBS)
28490 106 3366 28.18KG(62LBS)
28480 106 3367 28.15KG(62LBS)
28480 106 1863 28.60KG(63LBS)
28480 106 1594 6.47KG(14.25LBS)
28480 106 2081 12.26KG(27LBS)

ENCLOSURE (STYLE) 00130

17

106 9017

MIL-T-28800B STYLE E W/RACK MOUNT CAPABILITY

102C
3001
750A

04901 106 8032 RACK MOUNT CAPABILITY
23338 106 8033 RACK MOUNT CAPABILITY
33013 106 8035 RACK MOUNT CAPABILITY

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO REF'S MOL NO TYPE DESIGNATOR/ REF'S MODEL NO FSC CODE ID NO. PARAMETER

ENCLOSURE (STYLE) 00130

AN/URN-109
M185-4
SG-309/GRC-47
TF-1066A
8708A

79300 106 0388
16469 106 3277
28480 106 0843
09553 106 1612
28480 106 2081

RACK CABINET
PLUG-IN UNIT
RACK MOUNTED
PLUG-IN
PLUG-IN

PWR SOURCE(S)/CONSUMPTION 00140

17

102C
3001
6303
7504
86408

TYPE III 50.60 AND 400-HZ SINGLE PHASE 115/230VAC/75W

04901 106 8032
23338 106 8033
25778 106 8034
35013 106 8035
28480 106 8031

50-400HZ S-PHASE 120/240VAC/30W
50-400HZ S-PHASE 115/230VAC/40W
50-60,400HZ S-PHASE 115/230VAC/50W
50-60,400HZ S-PHASE 115/230VAC/75W
48-400HZ S-PHASE 120/240VAC/13W

AN/URN-109
AN/URN-48
AN/URN-70
AN/USM-44
AN/USM-44A
AN/USM-44B
SG-1038/U
SG-12/U
SG-309/GRC-47
SG-867/U
SG-969/U
SG-975/U
TF-1066A
TF-1247
10668/6
202E
5105A/51108
609CR
608CR(MOD)
609E
8654A
8708A

79300 106 0388
15196 106 0355
07450 106 0367
28480 106 0421
28480 106 0422
28480 106 0423
28480 106 0894
15196 106 0822
28480 106 0843
98329 106 0880
28480 106 0883
28480 106 0885
09553 106 1612
09553 106 1920
09553 106 1825
28480 106 1635
28480 106 1846
28480 106 3366
28480 106 3367
28480 106 1863
28480 106 1594
28480 106 2081

55-65HZ S-PHASE 115VAC
50-1000HZ S-PHASE 115/230VAC/75W
50-1000HZ S-PHASE 115VAC/150W
50-400HZ S-PHASE 115/230VAC/200W
50-400HZ S-PHASE 115/230VAC/200W
50-400HZ S-PHASE 115/230VAC/200W
45-100HZ S-PHASE 115/230VAC/80W
50-1000 S-PHASE 115/230VAC/75W
50-1000HZ S-PHASE 115/230VAC
50-400HZ S-PHASE 105/125VAC
50-400HZ S-PHASE 115/230VAC/220W
50-400HZ S-PHASE 115/230VAC/30W
40-60HZ S-PHASE 100/200VAC/90W
40-1000HZ S-PHASE 115VAC/
40-60HZ S-PHASE 115/230VAC/90W
50-400HZ S-PHASE 115/230VAC/100W
50-400HZ S-PHASE 115/230VAC/70W
50-400HZ S-PHASE 115/230VAC/220W
50-400HZ S-PHASE 115/230VAC/220W
50-60HZ S-PHASE 115/230VAC/220W
48-400HZ S-PHASE 110/240VAC/20W
50-400HZ S-PHASE 115/230VAC/48W

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VME-A

SPEC OTS ETE
NO MER'S MDL NO

TYPE DESIGNATOR/
MER'S MODEL NO

FAM TMC
CODE ID NO.

PARAMETER

ACCURACY -PCT-
OR AS STATED

MTBC SPECIFIED/PREDICTED 00150

17

106 9017 2000+RS

READOUT METHOD(S)

00160

3001
6303

23338 106 8033 METER W/6 DIGIT LEVEL INDICATOR SWITCH
25778 106 8034 METER

AN/URN-109
AN/URN-48
AN/URN-70
AN/USN-252
AN/USN-44
AN/USN-44A
AN/USN-44B
M185-4
M186-4
SG-1038/U
SG-127/U
SG-309/G3C-47
SG-867/U
SG-969/U
TF-1066A
12158
202E
5105A/51108
608E
8654A
8708A

79300 106 0388 DIAL
15196 106 0355 CIAL,METER
07450 106 0367 DIAL
24655 106 0487 DIAL
28480 106 0421 CIAL,METER
28480 106 0422 CIAL,METER
28480 106 0423 CIAL,METER
16469 106 3277 DIAL
16469 106 3278 DIAL
28480 106 0894 CPT,DIAL,METER
15156 106 0822 CIAL,METER
28480 106 0843 CIAL
98329 106 0880 CIAL,METER
28480 106 0883 DIAL,SCALE,METER
09553 106 1612 DIAL,METER
24655 106 1829 DIAL
28480 106 1635 DIAL,METER
28480 106 1846 PUSH BUTTON
28480 106 1863 DIALS,METER
29480 106 1594 DIAL,METER
28480 106 2081 METER

PRIMARY INPUT CONNECTOR(S) 00170

17

106 9017 BMC SERIES RF A SERIES

3001

23338 106 8033 TYPE N

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

ACCURACY -PCT-
OR AS STATED

ENVIRONMENTAL CONDITIONS 00200

17 106 9017 MIL-T-28800 TYPE III CLASS 5 STYLE COLOR P

TEMP OPER/NON-OPERATING 00210

17 106 9017 0 TO 50C/-55 TC 75C

86408 28480 106 8031 6-55 DEGREES

RELATIVE HUMIDITY 00220

17 106 9017 95(+5-0)

ALTITUDE OPER/NON-OPER 00230

17 106 9017 3050M(10000FT)/12000M(40000FT)

VIBRATION LIMIT (MAXIMUM) 00240

17 106 9017 2G

SHOCK, PULSE LEVEL 00250

17 106 9017 30G

DEFINITION OF QTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
OR AS STATED

SPEC QTS EYE NO. MFR'S MOL NO. TYPE DESIGNATOR/ MFR'S MODEL NO. FSCM CODE ID NO. PARAMETER

AMP MOD-EX 01200

17

106 9017 20HZ TC 20KHZ BY EXTERNAL SINE OR SQUARE WAVE CAPABILITY

3001
6303
750A
86408

23338 106 8033 0 TO 20KHZ
25778 106 8034 20HZ TC 20KHZ
33013 106 8035 DC TC 20KHZ
28480 106 8031 20KHZ TC 600KHZ

AN/JRM-109
AN/JRM-48
AN/JRM-70
AN/USM-252
AN/USM-44
AN/USM-44A
SG-1038/U
SG-867/U
SG-969/U
10648/6
202E
5105A/51108
608CR
609E

79300 106 0388 30HZ TC 15KHZ
15196 106 0355 100HZ TC 20KHZ
07450 106 0367 250HZ TO 70KHZ
24655 106 0487 400-1000HZ SQ-WAVE
28430 106 0421 20HZ TC 20KHZ
28480 106 0422 20HZ TC 20KHZ
28480 106 0894 10HZ TC 10KHZ
98329 106 0880 60HZ TC 100KHZ SC-WAVE
28480 106 0883 20HZ TC 20KHZ
09553 106 1825 30HZ TC 15KHZ
28480 106 1835 20HZ TC 20KHZ
28480 106 1846 1000HZ
28480 106 3366 20HZ TC 20KHZ
28480 106 1863 20HZ TC 20KHZ

AMP MOD-EX SENSITIVITY 01230

17

106 9017 EXT SINE OR SQ WAVE LT 5V P/P TO PRODUCE MOD OF 90 PCT

AMP MOD-INT

01600

17

106 9017 SELECTIVE BETWEEN 400-1000HZ INT AND EXTERNAL

10 PCT

3001
6303
750A
86408

23338 106 8032 400HZ AND 1KHZ INTERNAL
25778 106 8034 400-1000HZ
33013 106 8035 400HZ ANC 1KHZ
28480 106 8031 400-1000HZ INT AND EXT

AN/JRM-109 79300 106 0388 30 TC 15KHZ

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

AMP MOD-IN* 01600

AN/USM-48 15196 106 0355 1KHZ
AN/USM-70 07450 106 0367 1600 & 20KHZ
AN/USM-252 24655 106 0487 0 TC 5MHZ
AN/USM-44 28480 106 0421 400 & 1000HZ
AN/USM-44A 28480 106 0422 400 & 1000HZ
AN/USM-44B 28480 106 0423 400 & 1000HZ
SG-12/U 15196 106 0822 1KHZ
SG-867/U 98329 106 0880 1KHZ SC WAVE
SG-969/U 28480 106 0883 400 & 1KHZ
10663/6 09553 106 1825 1 & 5KHZ
202E 28480 106 1635 50HZ TC 60KHZ
608CR 28480 106 3264 400 & 1000HZ
608E 28480 106 1863 400 & 1000HZ

AMP MOD-INT, AMPL MCC FRE 01620

17 106 9017 INT & EXT AM CAPABILITY W/O-VO PCT MODULATION GT 10 PCT

23338 106 8033 0-50 PCT

3001

AMP MOD-INT, DISTORTION 01640

17 106 9017 NGT 2 PCT

6303

ATTENUATION, OUTPUT 03600

17 106 9017 RANGE NLT 120DB W/100DB VERNIER AT 108 STEPS +/-2 DB

25778 106 8034 -127DB TC +13DE

6303

28480 106 0894 95DB ATTENUATION IN 1 DB STEPS

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

SPEC OTS EYE
NO MFR'S MDL NO

TYPE DESIGNATOR/
MFR'S MDL NO

F4M TYPE
CODE ID NC.

PARAMETER

ACCURACY -PCT-
OR AS STATED

ATTENUATION, OUTPUT 03600

28480 106 1863 ADJUSTABLE FROM .1UV TC 1V ATTENUATOR

DISTORTION, INTERNAL 19600

2 PCT

106 9017 ACCUMULATED SIGNAL NGT

FREQ MOD 26020

17 106 9017 INTERNAL AND EXTERNAL 0 TO 40KHZ DEVIATION

750A

33013 106 8035 6-300KHZ

AN/URN-70
10668/6
202E

07450 106 0367 0 TO 150KHZ DEV
09553 106 1825 0 TO 100KHZ DEV
28480 106 1635 0 TO 240KHZ DEV

FREQ MOD-INT, SPURIOUS AMP 26440

5 PCT

106 9017 AT ANY FREQ W/DEVIATION SET AT 40KHZ NGT

FREQ RANGE 26600

+/-1 PCT

W/NPT 5 BANDS

106 9017 10MHZ TC 512MHZ

102C
3001
6303
750A
8640B

04901 106 8032 +45MHZ TC 520MHZ
23338 106 8033 1MHZ TC 520MHZ
25778 106 8034 10MHZ TC 480MHZ
33013 106 P035 4.5MHZ TC 520MHZ
28480 106 8031 +45MHZ TC 512MHZ

AN/URN-109 79300 106 0388 380 TO 430MHZ

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
CR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MDL NO FSCM CODE ID NO. TMCE PARAMETER

FREQ RANGE 26600

15196 106 0355 19.7 TC 102MHZ
07450 106 0367 50 TO 400MHZ
24655 106 0487 50 TO 250MHZ
28480 106 0421 10 TO 420MHZ
28480 106 0422 10 TO 420MHZ
28480 106 0423 10 TO 480MHZ
16469 106 3277 50 TC 200MHZ
16469 106 3278 200 TO 500MHZ
28480 106 0894 50 TC 50MHZ
15196 106 0822 19.7 TC 102.4MHZ
28480 106 0843 10MHZ TO 480MHZ
98329 106 0880 200 TO 500MHZ
28480 106 0883 10 TC 455MHZ
28480 106 0885 10 TO 500MHZ
09553 106 1612 10 TC 470MHZ
09553 106 1920 20 TO 300MHZ USED WITH MARCONI TF-1245
09553 106 1825 10 TC 470MHZ FM
24655 106 1829 50 TC 250MHZ
28480 106 1635 54 TO 216MHZ
28480 106 1846 100MHZ TC 500MHZ
28480 106 3366 10 TC 480MHZ
28480 106 3367 10 TO 400MHZ
28480 106 1863 1 TC 480MHZ
28480 106 1594 10 TC 520MHZ
28480 106 2081 50KHZ TC 430MHZ

IN 9 RANGES
IN 3 RANGES
IN 1 RANGE

IN 5 RANGES

IN 5 RANGES
IN 5 RANGES
IN 5 RANGES
IN 5 RANGES
IN 6 RANGES
IN 5 BANDS
IN 2 RANGES
IN 5 RANGES
IN 5 RANGES
IN 6 RANGES

+/-5 PCT
+/-1 PCT
+/-1 PCT
+/-0.01 PCT
+/-5 PCT
+/-1 PCT
+/-5 PCT
+/-1 PCT
+/-2 PCT
+/-2 PCT
+/-1 PCT
+/-5 PCT
+/-5 PCT
+/-5 PCT
+/-2 PCT
+/-1 PCT

FREQ RESPONSE 26800

17

106 9017 OVER ANY BAND NGT

108

FREQ STABILITY 27200

17

106 9017 CARRIER SHIFT W/MOD FREQ NGT

.005 PCT

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
OR AS STATED

FAM TMDE
CODE ID NO. PARAMETER

SPEC QTS ETE TYPE DESIGNATOR/
NO MFR'S MDL NO MFR'S MDL NO

FREQ. STABILITY, TEMPERATURE 27220

17 106 9017 DRIFT NGT .01PCT DURING 1 HOUR MIL-T-28800

102C 04901 106 8032 .05PPM PER HOUR
750A 33013 106 8035 20PPM +1KHZ W/2HR WARMUP
8640B 28480 106 8031 2PPM PER 90 DAYS

IMPEDANCE, INPUT 34400

+1-5 PCT

17 106 9017 600 OHM
102C 04901 106 8032 600 OHM
3001 23338 106 8033 600 OHM
6303 25778 106 8034 10K OHM
750A 33013 106 8035 600 OHM
8640B 28480 106 8031 600 OHM

IMPEDANCE, OUTPUT 35200

17 106 9017 50 OHMS
102C 04901 106 8032 50 OHMS
6303 25778 106 8034 50 OHMS
8640B 28480 106 8031 50 OHMS

AN/URM-109 79300 106 0388 50 OHMS
AN/URM-48 15196 106 0355 10 & 250 OHMS
AN/URM-70 07450 106 0367 50 OHMS
AN/USM-252 24655 106 0487 15K OHMS
AN/USM-448 28480 106 0423 50 OHMS
SG-12/U 15196 106 0822 10 & 25 OHMS
SG-309/GRC-47 28480 106 0843 50 OHMS
SG-867/U 98329 106 0880 50 OHMS
SG-969/U 28480 106 0883 50 OHMS
SG-975/U 28480 106 0885 50 OHMS
10668/6 09553 106 1825 50 OHMS

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

IMPEDANCE OUTPUT 35200

202E 28480 106 1635 25 & 50 OHMS
5105A/51108 28480 106 1846 50 OHMS
608CR 28480 106 3366 50 OHMS
608E 28480 106 1883 50 OHMS

MODULATION VOLTAGE 42600

+/-10 PCT

17 106 9017 AT 10KHZ DEV IN RANGE FROM 100HZ TO 15KHZ NGT

SPURIOUS FREQ 68000

17 106 9017 3008 BELOW UNMODULATED CARRIER LEVEL

3001 23338 106 8033 5508 BELCM CARRIER
6303 25778 106 8034 3508 BELCM MOD LEVEL
750A 33013 106 8035 3008 BELCM CARRIER FREQ

SPURIOUS NOISE OUTPUT 68400

17 106 9017 NGT 25K7 AT ANY FREQ

STANDING WAVE RATIO (SWR) 69600

17 106 9017 1.2 TO 1

3001 23338 106 8033 LT 1.2
6303 25778 106 8034 LT 1.2
750A 33013 106 8035 LT 1.2

AN/URN-70 07450 106 0367 LT 1.5

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-A

SPEC QTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

ACCURACY -PCT-
CR AS STATED

STANDING WAVE RATIO (SWR) 69600

SG-969/U

28480 106 0883 1.2

VOLTAGE OUTPUT 85600

17

106 9017 NLT IVCLTY RMS ACROSS 50 OHM LOAD

+/-108

102C
3001
6303
750A
8640B

04901 106 8032 1V ACROSS 50 OHM LOAD
23338 106 8033 1V AT 50 OHM LCAC
25778 106 8034 1V ACROSS 50 OHM LOAD
33013 106 8035 1V ACROSS 50 OHM LCAC
28480 106 8031 2V AT 50 OHM LCAC

AN/URM-109
AN/URM-48
AN/URM-70
AN/USM-25
AN/USM-44
AN/USM-44A
AN/USM-44B
M186-4
SG-12/U
SG-309/GRC-47
SG-867/U
SG-969/U
SG-975/U
10668/6
202E
5105A/51108
608CR
608CR(MUD)
608E
8654A
8708A

79300 106 0388 .31V
15196 106 0355 500V TC 10MV
07450 106 0367 1000V TC 100MV
24655 106 0487 2.4V
28480 106 0421 1000V TC 500V
28480 106 0422 .1MV TC .5V
23480 106 0423 1000V TC 1V
16469 106 3278 50V
15196 106 0822 1000V TC 1V
28480 106 0843 .1UV TC 1V
98329 106 0880 50MV TC 59V
28480 106 0883 .1UV TC .5V
28480 106 0885 0 TO 3.16V
09553 106 1825 .2UV TC 200MV
28480 106 1635 1000V TC 200MV
28480 106 1846 .1MV TC .22MV
28480 106 3366 1000V TC 1V
28480 106 3367 1000V TC 1V
28480 106 1863 1000V TC 1V
28480 106 1594 7000V TC 70MV
28480 106 2081 1 TO 3V

+/-25 PCT
+/-01 PCT
+/-1 PCT

+/-1 PCT
+/-12 PCT
+/-1 PCT

NOT
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APPENDIX G

SIGNAL GENERATOR, VHF-B

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Signal Generator, VHF-B" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table G-1 and other appropriate parts of this report.

Table G-1. SUPPORTING PUBLICATIONS FOR SIGNAL GENERATOR, VHF-B	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-3-1534 September 1976	Task 3A: Determination of the Set of Characteristics of TMDE Families
1073-01-6-1554R November 1976 (Revised January 1977)	Task 4/5A: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-11-1571 January 1977	Task 6A: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table G-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response with respect to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Signal Generator, VHF-B":

- TMDE Family Name: Signal Generator, VHF
- TMDE Family Code: 106
- OTS ETE Specification Number: 18

The TMDE Family for the Signal Generator, VHF was divided into two OTS ETE Specifications -- VHF-A (Instrument A) and VHF-B (Instrument B). This division covers the full VHF frequency spectrum and makes the specification competitive in the commercial market. This appendix presents Signal Generator, VHF-B, and Appendix F presented Signal Generator, VHF-A.

3. SUMMARY OF RECOMMENDATIONS

Table G-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of parameters reviewed, retained, added, deleted, modified, or subjected to other action are as follows:

- Reviewed 35
- Retained 34
- Added 0

Table G-2. SUMMARY OF PARAMETER ANALYSIS FOR SIGNAL GENERATOR, VHF-B

Table G-2. SUMMARY OF PARAMETER ANALYSIS FOR SIGNAL GENERATOR, VHF-B														
Parameter Code	Parameter Name	Param-eters Listed			ARINC Research Analysis					CERCOM Comments			Remarks	
		OTS ETE Spec	OTS ETE	USA TMDE	Retain	Add	Delete	Modify	Other	Concur	Add	Modify		Delete
00100	Signal Generator, VHF-B	x	x	x	x									
00110	Dimensions in cm/in.	x	x	x	x									
00120	Weight in kg/lb.	x	x	x	x									
00130	Enclosure Style	x	x		x									
00140	Power Source(s)/Consumption	x	x	x	x									
00150	MTBF	x			x									
00160	Readout Method		x	x					x					
00170	Primary Input Connectors	x			x									
00200	Environmental Conditions	x			x									
00210	Temperature, Operating/Nonoperating	x			x									
00220	Relative Humidity	x			x									
00230	Altitude, Operating/Nonoperating	x			x									
00240	Vibration Limit	x			x									
00250	Shock Level	x			x									
00260	VOR/ILS FAA	x	x	x	x									
01200	Amplitude Modulation - External	x	x	x	x									
01230	AM - External Sensitivity	x			x									
01600	Amplitude Modulation - Internal	x	x	x	x									
01620	AM Internal Percent Modulation	x			x									
01640	AM - Internal Distortion	x			x									

(continued)

Table G-2. (continued)

[illegible]

- Deleted 0
- Modify 0
- Other Action 1

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters considered in this analysis and summarized in Table G-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

SIGNAL GENERATOR, VHF

Narrative:

This parameter is the given manufacturer equipment name.

Conclusion:

The parameter name is compatible with the OTS ETE.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/ins

Narrative:

The OTS ETE and TMDE are compatible with the OTS ETE Specification.

Conclusion:

The parameter will permit OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

The OTS ETE and TMDE are compatible with the OTS ETE Specification.

Conclusion:

The compatibility provides a basis for competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00130

ENCLOSURE STYLE

Narrative:

There is insufficient data to make a qualified analysis; however, rack mount kits are easily fabricated.

Conclusion:

The rack mount capability should not inhibit competition among OTS ETE.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00140

POWER SOURCE(S)/CONSUMPTION

Narrative:

The OTS ETE and TMDE are common to the OTS ETE Specification.

Conclusion:

The common base affords competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00150

MTBF

Narrative:

OTS ETE and TMDE Source Documents do not indicate the MTBF of the listed items. However, the MTBF for the OTS ETE Specification was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA-18-72-A-0005, Delivery Order 0007.

Conclusion:

Based on the available data, the MTBF specified appears to be reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods employed by the ETE industry and the TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A particular readout method should not be specified.

CERCOM Comments:

Parameter Number

Parameter Name

00170

PRIMARY INPUT CONNECTORS

Narrative:

No data available.

Conclusion:

The input connectors and output connectors for signal cables at VHF frequencies commonly use the BNC type.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ALTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
00260	VOR/ILS FAA
Narrative:	Three (3) OTS ETE specified the avionics option for this parameter.
Conclusion:	The avionics options specified are common to the OTS ETE Specification and assure competition among ETE manufacturers.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
01200	AMPLITUDE MODULATION - EXTERNAL
Narrative:	Available data of OTS ETE indicates a common base to the OTS ETE Specification.
Conclusion:	The common base of OTS ETE suggests competition among OTS ETE manufacturers and should meet the majority of the Army's requirements.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
01230	AMPLITUDE MODULATION-EXTERNAL, SENSITIVITY
Narrative:	No data available.
Conclusion:	This parameter is a function of modulation where the proper modulation percentage level is determined by the signal voltage input.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
01600	AMPLITUDE MODULATION INTERNAL
Narrative:	The OTS ETE and TMDE are comparable to the OTS ETE Specification.
Conclusion:	The OTS ETE data provides a basis for competition among OTS ETE manufacturers and meets the Army TMDE requirements.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
01620	AMPLITUDE MODULATION INTERNAL
Narrative:	Four (4) TMDE list this parameter with maximum of 50 percent modulation.
Conclusion:	This parameter describes the percentage modulation requirement and is an essential item of consideration. The percentage may have to be lowered if the OTS ETE cannot meet the specification.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
01640	AM INTERNAL DISTORTION
Narrative:	No data available.
Conclusion:	This parameter is a function of amplitude modulation and determines the frequency stability and integrity of the output signal.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

03600

ATTENUATION, OUTPUT

Narrative:

One (1) TMDE listed this parameter, which is insufficient data for a comparative analysis.

Conclusion:

This parameter is essential in controlling signal level output to equipment under test or alignment.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26020

FREQUENCY MODULATION

Narrative:

One (1) OTS ETE listed this parameter, which is insufficient data for a comparison analysis.

Conclusion:

This parameter is a function of FM. The external and internal deviation capability are essential; however, this parameter may inhibit competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26440

FM, INTERNAL SPURIOUS AM

Narrative:

No data available.

Conclusion:

This parameter is a function of FM deviation and must be considered to ensure suppression of spurious amplitude modulation signals.

Recommendation:

Retain as Specified

CERCOM Comments:

AD-A052 424

ARINC RESEARCH CORP ANNAPOLIS MD
F/G 14/2
REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS FOR THE DEFINI--ETC(U)
MAR 78 L J GRAHAM, A L SIMMONS, B F PAIZ
DAEA18-72-A-0005
1076-01-2-1720
NL

UNCLASSIFIED

3 OF 4
AD
A052424



Parameter Number

Parameter Name

26600

FREQUENCY RANGE

Narrative:

The OTS ETE is common to the OTS
exceed U. S. Army requirements.

Conclusion:

The OTS ETE common base and great
OTS ETE manufacturer competition
capabilities.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

26800

FREQUENCY RESPONSE

Narrative:

No data available.

Conclusion:

This parameter is a function of
for maintenance of signal output

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

27200

FREQUENCY STABILITY

Narrative:

One (1) OTS ETE listed this par

Conclusion:

This parameter is a function of
considered for carrier shift su

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

34400

IMPEDANCE INPUT

Narrative:

Three (3) OTS ETE listed this parameter. Only one TMDE listed this parameter, which is insufficient data for a comparative analysis.

Conclusion:

The common base of OTS ETE suggests competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

35200

IMPEDANCE OUTPUT

Narrative:

The available OTS ETE and TMDE data are common to the OTS ETE Specification.

Conclusion:

The common base affords competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

42600

MODULATION VOLTAGE

Narrative:

No data available.

Conclusion:

This parameter identifies the voltage level variation allowance between different deviation levels and is an essential element for frequency modulation.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

56000

PULSE MODULATION (PM) - EXTERNAL

Narrative:

Two OTS ETE listed this parameter as external modulation capability. The TMDE listed none.

Conclusion:

The requirement of this parameter for the TMDE has not been substantiated by the TMDE data. However, the availability of this parameter enhances equipment.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

56400

PULSE MODULATION (PM) INTERNAL

Narrative:

The TMDE listed this parameter. No data available for OTS ETE. However, OTS ETE does specify external PM capability.

Conclusion:

This is a valid parameter to be retained based on the TMDE capability. However, it may inhibit competition and/or eliminate OTS ETE as a source of supply for this item.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

68000

SPURIOUS FREQUENCY

Narrative:

One (1) OTS ETE and one (1) TMDE listed this parameter. Insufficient data available for an in-depth analysis.

Conclusion:

This parameter identifies the total harmonic content level of the unmodulated carrier. It is essential for spurious frequency suppression.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number Parameter Name
68400 SPURIOUS NOISE OUTPUT

Narrative: No data available.

Conclusion: This parameter identifies allowable noise level from the
RF carrier. It is essential for RF signal noise suppression.

Recommendation: Retain as Specified

CERCOM Comments: _____

Parameter Number Parameter Name
69600 STANDING WAVE RATIO (SWR)

Narrative: Two (2) OTS ETE listed this parameter common to the OTS
ETE Specification.

Conclusion: The need for minimal SWR level for proper signal transfer
suggests that this parameter should be retained.

Recommendation: Retain as Specified

CERCOM Comments: _____

Parameter Number Parameter Name
85600 VOLTAGE OUTPUT

Narrative: The available OTS ETE and TMDE data is common to the OTS
ETE Specification.

Conclusion: The common parameter data suggests competition among OTS
ETE manufacturers.

Recommendation: Retain as Specified

CERCOM Comments: _____

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7) "Definitization of OTS ETE Specification", for the Signal Generator, VHF-B, OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 4 OTS ETE, and 19 Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-B

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE TYPE DESIGNATOR/ FSCM CODE ID NO. PARAMETER
NO MFR'S MOD NO MFR'S MODEL NO

00100

18 106 9018 SIGNAL GENERATOR VHF (AVIONIC)

TF2008 09553 106 8039 SIGNAL GENERATOR
1020 04901 106 8037 SIGNAL GENERATOR
6106 03782 106 8038 SIGNAL GENERATOR
86408/004 28480 106 8036 SIGNAL GENERATOR

AN/ARM-26C 87793 106 0109 SIGNAL GENERATOR
AN/PRM-10 13094 106 0240 TEST OSCILLATOR
AN/URM-181 28480 106 0404 GENERATOR SIGNAL
AN/URM-26 21900 106 0345 GENERATOR SIGNAL
AN/URM-26A 106 0346 GENERATOR SIGNAL
AN/URM-26B 106 0347 GENERATOR SIGNAL
AN/URM-313 24655 106 0523 GENERATOR SIGNAL
BC-376M 94486 106 2345 GENERATOR SIGNAL
SG-1112(V)1/U 28480 106 2072 SIGNAL GENERATOR
SG-13/ARM 16636 106 0823 GENERATOR SIGNAL
TS-497/URR 106 1031 GENERATOR SIGNAL
TS-497A/URR 106 1032 GENERATOR SIGNAL
TS-497B/URR 04423 106 1034 GENERATOR SIGNAL
102A 04901 106 1630 GENERATOR SIGNAL
211A 28480 106 1638 GENERATOR SIGNAL
750-S136 33013 106 1872 GENERATOR SIGNAL
8640A 28480 106 1591 GENERATOR SIGNAL
8640B 28480 106 2071 GENERATOR SIGNAL
8640B-001 28480 106 1593 GENERATOR SIGNAL

DIMENSIONS IN CM/INS 00110

18 106 9018 50CM(19IN)X16CM(6IN)HX47CM(18IN)D

TF2008 09553 106 8039 48CM(19IN)X29CM(11IN)HX32CM(13IN)D
1020 04901 106 8037 43CM(17IN)X15CM(6IN)HX48CM(19IN)D
86408/004 28480 106 8036 43CM(17IN)X14CM(6IN)HX47CM(18IN)D

AN/ARM-26C 87793 106 0109 36.20CM(14.25IN)HX29.21CM(11.5IN)HX27.31CM(10.75IN)D
AN/PRM-10 13094 106 0240 29.94CM(11.79IN)X21.59CM(8.5IN)HX12.70CM(5IN)D
AN/URM-181 28480 106 0404 20.43CM(8.04IN)X26.04CM(10.25IN)HX66.47CM(26.16IN)D

FAMILY NAME - SIGNAL GENERATOR VHF-B

ACCURACY -PCT-
OR AS STATED

G-18

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-8

ACCURACY -PCT-
OR AS STATED

PARAMETER

FAM THOE
CODE ID NC.

TYPE DESIGNATOR/
MFR'S MODEL NO

SPEC OTS ETE
NO MFR'S MOL NO

FSCM

WEIGHT IN KG/LBS 00120

20.43KG(45LBS)
20.43KG(45LBS)

86408
86408-001

28480 106 2071
28480 106 1593

ENCLOSURE (STYLE) 00130

MIL-T-28800B STYLE E W/RACKMOUNT CAPABILITY

18

106 9018
106 8037
106 8038

102D
6106

RACK MOUNT CAPABILITY
MAIN FRAME W/PLUG IN MODULES

AN/URN-26
BC-376M
SG-1112(V1)/U

21900 106 0345
94486 106 2349
28480 106 2072

PHR SOURCE(S)/CONSUMPTION 00140

TYPE III 50.60, AND 400HZ SINGLE PHASE 115/230VAC/125W

18

106 9018
106 8039
106 8037
106 8036

TF2308
102D
86408/004

45-500HZ S-PHASE 120/240VAC/22W
50-400HZ S-PHASE 120/240VAC/30W
48-400HZ S-PHASE 120/240VAC/13W
50-1000HZ S-PHASE 115VAC
50-1000HZ S-PHASE 115VAC
50-1000HZ S-PHASE 115VAC
1.5 & 50V BATTERIES BA-35 & BA-36
48-440HZ S-PHASE 120/240VAC/175W
265VAC/135W
50-60HZ S-PHASE 117VAC/85W
50-60HZ S-PHASE 117VAC/65W
50-60HZ S-PHASE 117VAC/65W
50-400HZ S-PHASE 115/230VAC/30W

AN/ARN-26C
AN/PRS-10
AN/URN-181
AN/URN-26
AN/URN-26A
AN/URN-26B
BC-376M
SG-1112(V1)/U
SG-13/ARN
TS-497A/URR
TS-497B/URR
102A

67793 106 0109
13094 106 0240
28480 106 0404
21900 106 0345
106 0346
106 0347
94486 106 2349
28480 106 2072
16636 106 0823
106 1031
106 1032
106 1034
04423 106 1630
04901 106 1630

ACCURACY - PCT -
CR AS STATED

ACCURACY - PCT -
CR AS STATED

ACCURACY - PCT -
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ACCURACY - PCT -
CR AS STATED

ACCURACY - PCT -
CR AS STATED

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-8

ACCURACY - PCT-
CR AS STATED

SPEC OTS EYE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

PRIMARY INPUT CONNECTOR(S) 00170

106 9018 BNC SERIES RF-N-SERIES

ENVIRONMENTAL CONDITIONS 00200

106 9018 MIL-T-28800B TYPE III CLASS 5, STYLE E, COLOR R

TEMP OPER/NON-OPERATING 00210

106 9018 0 TO 50C/-55 TC 75C

09553 106 8039 10-35C
28480 106 8036 0-55 DEGREES

RELATIVE HUMIDITY 00220

106 9018 95(+5-0)

ALTITUDE OPER/NON-CPER 00230

106 9018 3050M(10000FT)/12000M(40000FT)

VIBRATION LIMIT (MAXIMUM) 00240

106 9018 2G

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-8

ACCURACY - PCT-
OR AS STATED

SPEC OTS ETE NO MFR'S MOD NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

SHOCK, PULSE LEVEL 00250

18 106 9018 30G

VOR/ILS FAA STDS 00260

18 106 9018 VOR / ILS FAA STANDARDS

1020 04901 106 8037 AVIONIC OPTIONS 02,03,05,05,10
6106 03782 106 8038 AVIONIC OPTIONS
8643B/004 28480 106 8036 AVIONIC OPTION 004

8C-376M
SG-1112(V11)/U
SG-13/ARN

94486 106 2349 MEETS FAA STDS
28480 106 2072 MEETS FAA STDS
16636 106 0823 MEETS FAA STDS

AMP MOD-EX 01200

18 106 9018 20KZ TC 20KHZ BY INT OR EXTERNAL SINE OR SQ WAVE

TF2008 09553 106 8039 20KZ TC 20KHZ EXT
8640B/004 28480 106 8036 20KHZ TC 600KHZ

AN/USM-313
TS-497/UHR

24655 106 0523 EXT MOD CAPABILITY
106 1031 60KHZ TC 100KHZ

AMP MOD-EX, SENSITIVITY 01230

18 106 9017 EXT SINE OR SQ WAVE LT 5V P/P TO PRODUCE MOD OF 90 PCT

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-B

ACCURACY -PCT-
CR AS STATED

SPEC OTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

AMP MOD-INT----- 01600

10+ PCT

106 9018 SELECTIVE BETWEEN 400-1000HZ

09553 106 8039 300HZ TC 3KHZ
04901 106 8037 400-1000HZ
28480 106 8036 400-1000HZ

87793 106 0105 400 & 1000+Z
28480 106 0404 400-1000HZ
21900 106 0345 400 & 1000+Z
106 0346 400-1000HZ
106 0347 400-1000HZ
16636 106 0823 90 & 150HZ
04901 106 1031 400-1000HZ
102A 106 1630 400 & 1000+Z

AMP MOD-INT, AMPL MCD FRE 01620

106 9018 0-90 PCT AM BY INT & EXT SIGNAL SOURCES

28480 106 0404 0-50 PCT MCD INT
106 0346 0-50 PCT MCD INT
106 0347 0-50 PCT MCD INT
106 1031 0-30 PCT MCD INT

AMP MOD-INT, DISTORTION 01640

2 PCT

106 9018 DISTORTION OF AM CARRIER NGT

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-B

ACCURACY -PCT-
OR AS STATED

SPEC OTS ETE TYPE DESIGNATOR/
NO MFR'S MDL NO MFR'S MDL NO FSCM CODE ID NO. PARAMETER

ATTENUATION, OUTPUT 03600

18 106 9018 NLT 120CB W/10CB VERNIER IN 108 STEPS +/-0.208

SG-1112(V)1/U 28480 106 2072 10DP STEP ATTENUATOR IN 1 DR STEPS

FREQ MOD 26020

18 106 9018 INTERNAL AND EXTERNAL DEV CAPABILITY OF 0-40KHZ RMS

86408/004 28480 106 8036 AM AND FM CR PULSE AND FM

FREQ MOD-INT, SPURIOUS AMP 26440

18 106 9018 AT ANY FREQ W/DEVIATION SET AT 40KHZ NGT 5 PCT

FREQ RANGE 26600

18 106 9018 450KHZ TC 520MHZ IN YMT 6 RANGES +/-0.5 PCT

TF2008 106 8039 10KHZ TO 512MHZ W/11 RANGES
1020 106 8037 -45MHZ TC 520MHZ
6106 106 8038 61KHZ TO 512MHZ W/MODULE PLUG-IN 6202
86408/004 28480 106 8036 -45MHZ TC 512

AN/PRM-26C 87793 106 0109 3MHZ TC 405MHZ +/-0.5 PCT
AN/PRM-10 13094 106 0240 2 TO 400MHZ +/-1.5 PCT
AN/URM-181 28480 106 0404 54 TC 216MHZ
AN/URM-26 21900 106 0345 3 TO 405MHZ
AN/URM-26A 106 0346 3 TO 405MHZ +/-0.5 PCT
AN/URM-26B 106 0347 4 TC 405MHZ +/-0.5 PCT
AN/USM-313 24655 106 0523 500KHZ TO 50MHZ +/-0.5 PCT
BC-376M 94486 106 2345 75MHZ +/-2 PCT
SG-1112(V)1/U 28480 106 2072 500KHZ TC 512MHZ IN 10 RANGES +/-0.05 PCT

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-B

ACCURACY -PCT-
CR AS STATED

SPEC QTS ETE NO. MFR'S MDL NO. TYPE DESIGNATOR/ MFR'S MODEL NO. FSCM CODE ID NO. PARAMETER

FREQ RANGE 26600

16636	106	0823	108 TO 335MHZ	IN 2 RANGES	.0065 PCT
	106	1031	2 TO 400MHZ	IN 6 RANGES	
	106	1032	2 TO 400MHZ	IN 6 RANGES	+/- .5 PCT
04423	106	1034	2 TO 400MHZ	IN 5 RANGES	
04901	106	1030	4.3 TO 520MHZ	IN 10 RANGES	
28480	106	1038	88 TC 140MHZ	IN 10 RANGES	
33013	106	1872	9.5 TO 520MHZ	IN 10 RANGES	
28480	106	1591	500KHZ TO 512MHZ	IN 10 RANGES	
28480	106	2071	500 TO 512MHZ		
28480	106	1593	500 TO 512MHZ		

FREQ RESPONSE 26800

18

106 9018 OVER ANY BAND NGT

+/-20R

FREQ STABILITY 27200

18

106 9018 CARRIER FREQUENCY SHIFT W/MOD FREQ NGT

.005 PCT

102D

04901 106 8037 INTERNAL PHASE LOCK

IMPEDANCE INPUT 34400

18

106 9018 600 OHMS

+/-5 PCT

TF2008
102D
86408/004

09553 106 8039 600 OHMS
04901 106 8037 600 OHM
28480 106 8036 600 OHM

SG-1112(V)1/U

28480 106 2072 2K OHMS

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-8

ACCURACY -PCT-
OR AS STATED

SPEC OTS EYE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

IMPEDANCE OUTPUT 35200

18 1020 864JB/004 106 9018 IMPEDANCE OUTPLT 50 OHMS

04901 106 8037 CDTICN 02
28480 106 8036 50 OHMS

87793 106 0109 50 OHMS
28480 106 0404 50 OHMS
21900 106 0345 50 OHMS
AN/URN-26 106 0346 50 OHMS
AN/URN-268 106 0347 50 OHMS
AN/URN-313 106 0523 50 OHMS
TS-497/URR 106 1031 53.5 OHMS

MODULATION VOLTAGE 42600

18 106 9018 DIFFERENCE BETWEEN 10KHZ & 1KHZ DEV SHALL NOT VARY +/-10 PCT

PULSE MOD (PM)-EX 56000

18 106 9018 EXTERNAL SIGNAL MOD CAPABILITY

09553 106 8039 30HZ TC 125KHZ
04901 106 8037 RF FROM CTRFR SOURCE

PULSE MOD (PM)-INT 56400

18 106 9018 INTERVAL PM CAPABILITY AT 50 TO 5000PPS W/10-40USEC WIDT H

87793 106 0109 50-5000PPS
21900 106 0345 50-5000PPS
AN/URN-26 106 0346 50-5000PPS
AN/URN-268 106 0347 50-5000PPS 2-40USEC PULSE WIDTH

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-B

ACCURACY - PCT -
OR AS STATED

SPEC OTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

PULSE MOD (PM)-INT 56400

106 1031 60HZ TO 100KHZ PPS 1-40USEC PULSE WIDTH

TS-497/URR

SPURIOUS FREQ 68000

10 106 9018 HARMONIC CONTENT LEVEL 30DB BELOW UNMODULATED CARRIER

09553 106 8039 -40 TO -30DB BELOW

TF2008

28480 106 0404 30DB BELOW DESIRED FREQ

AN/URM-181

SPURIOUS NOISE OUTPUT 68400

10 106 9018 RF NOISE LEVEL AT LEAST 35DB BELOW CARRIER LEVEL

STANDING WAVE RATIO (SWR) 69600

106 9018 LT 1.2

10

09553 106 8039 LT 1.2
04901 106 8037 LT 1.5

TF2008
102D

VOLTAGE, OUTPUT 85600

106 9018 RF VOLTAGE NLT 1VCLT ACROSS 50 OHM LOAD

10

+/-108

09553 106 8039 -20V-200MV ACROSS 50 OHM LOAD
04901 106 8037 1V ACROSS 50 OHM LOAD
28480 106 8036 2V AT 50 OHM LOAD

TF2008
102D
86408/004

AN/ARM-26C

87793 106 0109 .1UV TO 100.000UV

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - SIGNAL GENERATOR VHF-B

ACCURACY -PCT-
OR AS STATED

FAN TYPE
CODE ID NC. PARAMETER

SPEC OTS ETE
NO MFR'S MDL NO TYPE DESIGNATOR/
MFR'S MODEL NO FSCM

VOLTAGE OUTPUT 85600

AN/URM-181	28480	106	0404	1000UV TC 200MV	+/-2 PCT
AN/URM-26	21900	106	0345	1000UV TC 100MV	
AN/URM-268		106	0347	1000UV TC 100MV	
AN/USM-313	24655	106	0523	.32V	
SC-1112(V)11/U	28480	106	2072	180UV TC 1.3V	
TS-497/URR		106	1031	1000UV TC 100MV	
TS-497A/URR		106	1032	1000UV TC 100MV	
211A	28480	106	1638	1000UV TC 200MV	
8640A	28480	106	1638	130V TC 2V	
8640B	28480	106	1591	130V TC 2V	
86408-001	28480	106	1593	130V TC 2V	

VCR61LS LOCALIZER RECEIVERS

APPENDIX H

STROBOSCOPE

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Stroboscope" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table H-1 and other appropriate parts of this report.

Table H-1. SUPPORTING PUBLICATIONS FOR STROBOSCOPE	
ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-9-1567 January 1977	Task 3E: Determination of the Set of Characteristics of TMDE Families
1073-01-15-1604 May 1977	Task 4/5E: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-18-1629 July 1977	Task 6E: TMDE Family Specifications
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table H-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Stroboscope":

- TMDE Family Name: Stroboscope
- TMDE Family Code: 065
- OTS ETE Specification Number: 95

3. SUMMARY OF RECOMMENDATIONS

Table H-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The numbers of Stroboscope parameters reviewed, retained, added, deleted, modified, or subjected to other action are as follows:

- Reviewed 16
- Retained 14
- Added 0
- Deleted 0
- Modify 1
- Other Action 1

[illegible]

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters considered in this analysis and summarized in Table H-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

STROBOSCOPE

Narrative:

This parameter is compatible with the OTS ETE and TMDE equipment names.

Conclusion:

The OTS ETE and TMDE name is common to the OTS ETE Specification.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSION IN cm/in

Narrative:

The OTS ETE and the OTS ETE Specification are compatible.

Conclusion:

The OTS ETE Specification promotes competition among the OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

The available data indicates the OTS ETE and TMDE parameters are well below the OTS ETE Specification.

Conclusion:

The OTS ETE and TMDE compatibility with the specification indicates competition among OTS ETE manufacturers and that the total weight can be reduced.

Recommendation:

Modify specification to read: 5 KG (11 lbs).

CERCOM Comments:

Parameter Number

Parameter Name

00140

POWER SOURCE/CONSUMPTION

Narrative:

Two (2) of four OTS ETE meet the specification, with no TMDE listing the 230 volt capability or other than 60 Hz operating frequency.

Conclusion:

The OTS ETE offers increased flexibility with operating frequencies and voltages. However, there may not be a requirement for 400 Hz and 230 Vac power with the Army for this type of instrument.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00150

MTBF (Mean Time Between Failures)

Narrative:

OTS ETE and TMDE source documents do not indicate the MTBF of the listed items. However, the MTBF for the OTS ETE Specification was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA-18-72-A-0005, Delivery Order 0007.

Conclusion:

Based on the available data, the MTBF specified appears to be reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods employed by the ETE industry and the TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A specific readout method should not be specified.

CERCOM Comments:

Parameter Number

Parameter Name

00170

PRIMARY INPUT CONNECTORS

Narrative:

One (1) OTS ETE listed this parameter. There is insufficient data to make a comparative analysis.

Conclusion:

The OTS ETE Specification appears valid for this type of instrument.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ALTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

24400

FLASH CHARACTERISTICS

Narrative:

The OTS ETE compares more favorably with the OTS ETE Specification than the TMDE and generally enhances test capabilities.

Conclusion:

The comparisons of the OTS ETE to the OTS ETE Specification indicate competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

39600

LIGHT INTENSITY

Narrative:

One (1) OTS ETE listed this parameter.

Conclusion:

There is insufficient data available to make a rational conclusion; however, the specified value is reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

74000

SYNCHRONIZATION INPUT

Narrative:

Three (3) OTS ETE are common to the OTS ETE Specification. One (1) TMDE of nine (9) listed this parameter capability.

Conclusion:

The OTS ETE are common to the OTS ETE Specification and indicate adequate competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7), "Definitization of OTS ETE Specification", for the Stroboscope OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification OTS ETE, and Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - STROBOSCOPE

ACCURACY - PCT-
OR AS STATED

SPEC OTS EYE TYPE DESIGNATOR/
NO MFR'S MDL NO MFR'S MDL NO FSCM CODE ID NO. PARAMETER

00100

065 9095 STROBOSCOPE

24655 065 8046 STROBOSCOPE
05611 065 8046 STROBOSCOPE
16902 065 8049 STROBOSCOPE/PPTOTACOMETER
15806 065 8047 STROBOSCOPE

TS-805/U 24655 065 1108 STROBOSCOPE
TS-805A/U 24655 065 1109 STROBOSCOPE
TS-805R/U 83490 065 1110 STROBOSCOPE
TS-805C/U 00708 065 1111 STROBOSCOPE
TS-805D/U 83490 065 1112 STROBOSCOPE
153148 24655 065 1717 TACHOMETER STROBOSCOPIC
1538-A 24655 065 1718 STROBOSCOPE

DIMENSIONS IN CM/INS 00110

95 065 9095 30.5CM(12IN)X20.3CM(8IN)HX38.1CM(15IN)D

24655 065 8046 27CM(11IN)X17CM(7IN)X16CM(6IN)D
15806 065 8047 15CM(6IN)X23CM(9IN)X20CM(8IN)D

TS-805/U 24655 065 1108 16.51CM(6.5IN)X23.50CM(9.25IN)HX24.77CM(9.75IN)D
TS-805A/U 24655 065 1109 19.30CM(7.6IN)X22.86CM(9IN)HX25.40CM(10IN)D
153148 24655 065 1717 26.99CM(10.63IN)X15.56CM(6.13IN)HX16.83CM(6.63IN)D
1538-A 24655 065 1718 27CM(10.63IN)X16.84CM(6.63IN)HX33.02CM(13IN)D

WEIGHT IN KG/LBS 00120

065 9095 9KG(20LBS)

24655 065 8046 3.5KG(7.5LBS)
05611 065 8048 4KG(8LBS)

TS-805/U 24655 065 1108 4.31KG(9.5LBS)

DEFINITION OF QTS EYE SPECIFICATIONS

FAMILY NAME - STROBOSCOPE

ACCURACY - PCT -
OR AS STATED

SPEC QTS EYE TYPE DESIGNATOR/ FAM TMOE
NO MFR'S MDL NO MFR'S MODEL NO FSCM CCDE ID NO. PARAMETER

WEIGHT IN KG/LBS 00120

24655 065 1717 3.29KG(7.55LBS)
24655 065 1718 3.41KG(7.5LBS)

PMR SOURCE(S)/CONSUMPTION 00140

95 065 9095 TYPE III 50,60,400HZ SINGLE PHASE 115/230VAC/30W
1531A 50-400HZ S-PHASE 115/230VAC/25W BATTERY OPTIONAL
165 60HZ, S-PHASE 130VAC
932 50,60HZ S-PHASE 115/230VAC

24655 065 1108 60HZ S-PHASE 105/125VAC/35W
24655 065 1109 60HZ S-PHASE 105/125VAC
00708 065 1111 60HZ S-PHASE 115VAC
83490 065 1112 60HZ S-PHASE 115VAC

MTBF SPECIFIED/PREDICTED 00150

95 065 9095 ALT 2000 MFS

READOUT METHOD(S) 0016C

165 05611 065 8048 FREQ METER VIA RANGE SELECTOR SWITCH
410 16902 065 8049 METER VIA PICK-UP HEAD

24655 065 1108 DIAL
83490 065 1110 DIAL
83490 065 1112 DIAL
24655 065 1717 DIAL
1531A 24655 065 1718 DIAL
1538-A

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - STROSCOPE

ACCURACY - PCT -
OR AS STATED

SPEC OTS ETE TYPE DESIGNATOR/ FAW TMOE
NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

PRIMARY INPUT CONNECTOR(S) 00170

95 065 9095 TIP-RING SLEEVE AUDIO PLUG

1531A 24655 065 8046 PHONE JACKS FOR EXT TRIGGERING

ENVIRONMENTAL CONDITIONS 00200

95 065 9095 MIL-T-28800R TYPE III CLASS 5 STYLE 5 COLOR 2

TEMP OPER/NON-OPERATING 00210

95 065 9095 0 TO 50C/-55 TO 75C

RELATIVE HUMIDITY 00220

95 065 9095 95(+5-0)

ALTITUDE OPER/NON-OPER 00230

95 065 9095 3050M(10000FT)/1200M(40000FT)

VIBRATION LIMIT (MAXIMUM) 00240

95 065 9095 2G

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - STROBOSCOPE

ACCURACY - PCT -
OR AS STATED

NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NC. PARAMETER

SHOCK, PULSE LEVEL 00250

95 065 9095 30G

FLASH CHARACTERISTICS 24400

95 065 9095 RANGE FROM 110 TO 25,000 FLASHES PER MINUTE +/-1 PCT

1531A 24655 065 8046 110 TO 25,000 FLASHES PER MINUTE
165 05611 065 8048 115 TO 25,000 FLASHES PER MINUTE
410 15902 065 8049 0 TO 50,000 FLASHES PER MINUTE
932 15806 065 8047 0 TO 30,000 FLASHES PER MINUTE

TS-805/U 24655 065 1108 600 TO 14,400 FLASHES PER MIN IN 2 RANGES
TS-805A/U 24655 065 1109 60 TO 14400 FLASHES PER MINUTE IN 2 RANGES
TS-805B/U 83490 065 1110 60 TO 15,000 FLASHES PER MINUTE IN 2 RANGES
TS-805C/U 00708 065 1111 60 TO 14,400 FLASHES PER MINUTE IN 2 RANGES
TS-805D/U 83490 065 1112 600 TO 15,000 FLASHES PER MIN IN 2 RANGES
1531AB 24655 065 1717 110 TO 25,000 FLASHES PER MINUTE IN 3 RANGES
1534-A 24655 065 1718 110 TO 150,000 FLASHES PER MINUTE IN 4 RANGES

LIGHT INTENSITY 39600

95 065 9095 .5X10 CANDELAS

1531A 24655 065 8046 06 TO 40 CANDELA

SYNCHRONIZATION, INPUT 74000

95 065 9095 EXTERNAL SOURCE SYNC CAPABILITY

1531A 24655 065 8046 EXT TRIGGER +60 PULSE OR 2VOLT SINE WAVE
165 05611 065 8048 EXT TRIGGER AND SYNC SIGNALING
932 15806 065 8047 EXT TRIGGERING

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - STP280SCOPE

SPEC OTS ETE NO MFR'S MDL NO	TYPE DESIGNATOR/ MFR'S MODEL NO	FAM CODE	TMDE ID NO.	PARAMETER	ACCURACY -PCT- OR AS STATED
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SYNCHRONIZATION, INPUT 7400C

1531A	24655	065	1717	EXTERNAL TRIGGER INPUT CAPABILITY	
1533-A	24655	065	1718	INPUT TRIGGERING CAPABILITY	

APPENDIX I

VOLTMETER, DIFFERENTIAL

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents the detailed analysis, recommendations, and supporting data applicable to the "Voltmeter, Differential" OTS ETE Specification. It includes supporting publications and a parameter analysis summary. It should be used in conjunction with the documents listed in Table I-1 and other appropriate parts of this report.

Table I-1. SUPPORTING PUBLICATIONS FOR VOLTMETER, DIFFERENTIAL

ARINC Research Publication Number and Date	Title
1073-01-1-1504 July 1976	Task 1: Engineering Review of Field Assets to Identify Families of TMDE
1073-01-2-1517 August 1976	Task 2: Determination of an Analysis Sequence for the TMDE Families
1073-01-4-1540 October 1976	Task 3B: Determination of the Set of Characteristics of TMDE Families
1073-01-7-1553 November 1976 (Revised January 1977)	Task 4/5B: Determination of Best Mix, Technological Forecast, and Availability of Existing TMDE
1073-01-13-1583 March 1977	Task 6B: TMDE Family Specification
1076-01-1-1693 December 1977	Final Report, Task 1: Establish Project Data Base Structure for Definitization of Specifi- cations for Families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE)

The appendix is structured to permit CERCOM directly and completely to review the data, analysis, and recommendations for each technical parameter considered in the analysis and to make comments related to each recommendation. To facilitate the recording of CERCOM comments, several columns have been provided in the parameter analysis summary, Table I-2, for CERCOM to give a brief response to each recommendation made for each analyzed technical parameter. Additional space for CERCOM remarks is provided at the end of each technical parameter discussion.

It is recommended that CERCOM use the space provided to record their response to each recommendation before returning the analysis form to ARINC Research Corporation. This approach should enhance the review process and prevent misunderstandings.

2. IDENTIFICATION DATA

The following identification data are applicable to the OTS ETE Specification "Voltmeter, Differential":

- TMDE Family Name: Voltmeter, Differential
- TMDE Family Code: 121
- OTS ETE Specification Number: 38

3. SUMMARY OF RECOMMENDATIONS

Table I-2 lists all parameter codes and names considered in this analysis and indicates whether the parameter was part of the OTS ETE Specification, was contained in one or more of the selected OTS ETE, or was contained in one or more of the Army inventory TMDE. It summarizes the recommendations made during the ARINC Research analysis. The last set of columns is provided for CERCOM to comment on the ARINC Research analysis -- i.e., concur with the analysis, add a new parameter, or modify or delete an existing parameter. The "Remarks" section is also for CERCOM use.

The number of parameters reviewed, retained, added, deleted, modified, or subjected to other action are as follows:

- | | |
|----------------|----|
| • Reviewed | 19 |
| • Retained | 15 |
| • Added | 0 |
| • Deleted | 0 |
| • Modify | 3 |
| • Other Action | 1 |

Table I-2. SUMMARY OF PARAMETER ANALYSIS FOR VOLTMETER, DIFFERENTIAL

Parameter Code	Parameter Name	Param-eters Listed			ARINC Research Analysis				CERCOM Comments				Remarks	
		OTS ETE Spec	OTS ETE	USA TMDE	Retain	Add	Delete	Modify	Other	Concur	Add	Modify		Delete
00100	Voltmeter, Differential	x	x	x	x									
00110	Dimensions in cm/in.	x	x	x				x						
00120	Weight in kg/lb.	x	x	x				x						
00130	Enclosure Style	x	x		x									
00140	Power Source(s)/Consumption	x	x	x	x									
00150	MTBF	x			x									
00160	Readout Method		x	x					x					
00170	Primary Input Connector(s)	x		x	x									
00200	Environmental Conditions	x			x									
00210	Temperature, Operating/Nonoperating	x			x									
00220	Relative Humidity	x			x									
00230	Altitude, Operating/Nonoperating	x			x									
00240	Vibration Limit	x			x									
00250	Shock Level	x			x									
26650	Input Frequency Range Measurement	x	x	x				x						
34400	Input Impedance	x	x	x	x									
46800	Null Mode	x	x	x	x									
84000	Voltage AC	x	x	x	x									
84400	Voltage DC	x	x	x	x									

4. DETAILED REVIEW AND ANALYSIS

This section presents a numeric-sequential listing of all technical parameters considered in this analysis and summarized in Table I-2. Following each parameter listing, the rationale applicable to the parameter is provided in a "Narrative". The narrative is followed by a "Conclusion" and a "Recommendation" applicable to that specific technical parameter. An area is reserved for CERCOM's written comments. Throughout this section the terms "TMDE" and "OTS ETE" refer, respectively, to the U.S. Army inventory TMDE and to those ETE selected as representative of the commercial market.

Parameter Number

Parameter Name

00100

VOLTMETER, DIFFERENTIAL

Narrative:

The parameter is the given name for the equipment type.

Conclusion:

The OTS ETE and TMDE names are common to the OTS ETE Specification.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00110

DIMENSIONS IN cm/in

Narrative:

Two (2) OTS ETE and five (5) TMDE parameters exceed the OTS ETE Specification.

Conclusion:

Adherence to the specification would eliminate competition.

Recommendation:

Modify OTS ETE Specification to read:
42.5 CM (16.75 IN) W X 24.33 CM (9.62) H X 46.36 CM (18.25 IN) D

CERCOM Comments:

Parameter Number

Parameter Name

00120

WEIGHT IN kg/lbs

Narrative:

Two (2) OTS ETE exceed the OTS ETE Specification.

Conclusion:

Adherence to the specification would eliminate OTS ETE manufacturer competition.

Recommendation:

Modify parameter to read: 13 KG (29 lbs)

CERCOM Comments:

Parameter Number

Parameter Name

00130

ENCLOSURE STYLE

Narrative:

Only one (1) OTS ETE listed this parameter.

Conclusion:

There is insufficient data for a comparative analysis.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00140

POWER SOURCE(S)/CONSUMPTION

Narrative:

The OTS ETE are comparable to the OTS ETE Specification.

Conclusion:

The compatibility of the OTS ETE to the OTS ETE Specification should promote adequate OTS ETE manufacturer competition.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00150

MTBF

Narrative:

OTS ETE and TMDE Source Documents do not indicate the MTBF of the listed items. However, the MTBF for the OTS ETE Specification was derived from data provided by ETE industry in response to a survey conducted under Contract DAEA-18-72-A-0005, Delivery Order 0007.

Conclusion:

Based on available data, the MTBF specified appears reasonable.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00160

READOUT METHOD

Narrative:

There are various readout methods employed by the ETE industry and the TMDE.

Conclusion:

The readout method should indicate the reading of the parameter specified within the given range accuracy as contained in the OTS ETE Specification.

Recommendation:

A specific readout method should not be specified.

CERCOM Comments:

Parameter Number

Parameter Name

00170

PRIMARY INPUT CONNECTOR(S)

Narrative:

There is insufficient data for a comparative analysis.

Conclusion:

There was insufficient data for analysis; however, the banana type plug is generally used with this type of equipment.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

00200

ENVIRONMENTAL CONDITIONS

00210

TEMPERATURE OPER/NON-OPER

00220

RELATIVE HUMIDITY

00230

ALTITUDE OPER/NON-OPER

00240

VIBRATION LIMIT

00250

SHOCK LEVEL

Narrative:

Information on these parameters for OTS ETE and TMDE is insufficient to analyze.

Conclusion:

These parameters are required for Type III Class 5, Style E test equipment IAW MIL-T-28800B.

Recommendation:

Retain as Specified

CERCOM Comments:

<u>Parameter Number</u>	<u>Parameter Name</u>
26650	INPUT FREQUENCY RANGE MEASUREMENT
Narrative:	The available data shows that the OTS ETE and TMDE are not within the low side of the OTS ETE Specification input frequency range.
Conclusion:	The parameter low side inhibits OTS ETE manufacturer competition.
Recommendation:	Modify OTS ETE Specification to read: input frequency range measurement 20 Hz to 5 kHz.
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
34400	INPUT IMPEDANCE
Narrative:	The specified parameter meets Army requirements for the one TMDE listing this parameter; there is insufficient data on the TMDE.
Conclusion:	The capabilities of the OTS ETE insure competition among OTS ETE manufacturers.
Recommendation:	Retain as Specified
CERCOM Comments:	<hr/> <hr/>

<u>Parameter Number</u>	<u>Parameter Name</u>
46800	NULL MODE
Narrative:	The OTS ETE are common to the OTS ETE Specification.
Conclusion:	The common base of OTS ETE to the OTS ETE Specification provides for OTS ETE manufacturer competition.
Recommendation:	Retain Parameter
CERCOM Comments:	<hr/> <hr/>

Parameter Number

Parameter Name

84000

VOLTAGE AC

Narrative:

One (1) OTS ETE lists this parameter common to the specification. The majority of the TMDE data is common to the OTS ETE Specification.

Conclusion:

The available data of the OTS ETE parameter is insufficient for comparative analysis. The listed TMDE strengthens the retention need for this parameter.

Recommendation:

Retain as Specified

CERCOM Comments:

Parameter Number

Parameter Name

84400

VOLTAGE DC

Narrative:

The OTS ETE and majority of TMDE share a common base with OTS ETE Specification.

Conclusion:

This base indicates an adequate competition among OTS ETE manufacturers.

Recommendation:

Retain as Specified

CERCOM Comments:

5. SUPPORTING DATA

This section contains a reproduction of computer printout Number 7 (CP-7), "Definitization of OTS ETE Specification", for the Voltmeter, Differential OTS ETE Specification. CP-7 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE Specification, 4 OTS ETE, and 13 Army inventory TMDE. This printout provided the supporting data for the detailed review and analysis shown in Section 4 of this appendix.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

DEFINITION OF QTS EYE SPECIFICATIONS

FAMILY NAME - VOLTMETER DIFFERENTIAL

SPEC QTS EYE TYPE DESIGNATOR/ FAW TYPE ACCURACY -PCT-
NO MFR'S HOL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER OR AS STATED

00100

021 9038 VOLTMETER DIFFERENTIAL

1002 25778 121 8043 VOLTMETER DIFFERENTIAL
1412 25778 121 8044 VOLTMETER DIFFERENTIAL
7408 28480 121 8041 VOLTMETER DIFFERENTIAL
887AB 89536 121 8042 VOLTMETER DIFFERENTIAL

ME-202/U 89536 121 0682 VOLTMETER ELECTRONIC
ME-202B/U 89536 121 0683 VOLTMETER ELECTRONIC
TS-2843/U 89536 121 1210 VOLTMETER
335A 89536 121 3456 CALIBRATOR VOLTMETER
7418 28480 121 1965 DC STANDARD DIFFERENTIAL VOLTMETER
803 89536 121 1966 DIFFERENTIAL VOLTMETER
803R 89536 121 2559 VOLTMETER ELECTRONIC PRECISION DIFFERENTIAL
803AG 89536 121 1967 VOLTMETER DIFFERENTIAL
887-ABAN 89536 121 1969 VOLTMETER ELECTRONIC
897A 89536 121 2560 VOLTMETER DIFFERENTIAL
891A 89536 121 1971 VOLTMETER DIFFERENTIAL
893A 89536 121 1972 VOLTMETER CC DIFFERENTIAL
89536 121 1973 VOLTMETER DIFFERENTIAL

00110

021 9038 26CM(101IN)HX23.5CM(91IN)HX40.5CM(151/2IN)D

1002 25778 121 8043 30CM(121IN)HX28CM(111IN)HX45CM(181IN)D
1412 25778 121 8044 23CM(91IN)HX18CM(71IN)HX25CM(101IN)D
7408 28480 121 8041 42.5CM(16.75IN)HX17.5CM(6.88IN)HX46.4CM(18.25IN)D
887AB 89536 121 8042 23CM(91IN)HX18CM(71IN)HX38CM(151IN)D

ME-202/U 89536 121 0682 24.77CM(9.75IN)HX40.64CM(16IN)HX33.02CM(131IN)D
ME-202B/U 89536 121 0683 24.77CM(9.75IN)HX40.64CM(16IN)HX33.02CM(131IN)D
TS-2843/U 89536 121 1210 21.59CM(8.51IN)HX17.78CM(7IN)HX37.57CM(14.75IN)D
335A 89536 121 3456 48.26CM(19IN)HX46.99CM(18.5IN)HX17.78CM(7IN)D
7408 28480 121 1965 42.55CM(16.75IN)HX17.46CM(6.88IN)HX46.36CM(18.25IN)D
7418 28480 121 1966 42.55CM(16.75IN)HX17.78CM(7IN)HX46.36CM(18.25IN)D
803 89536 121 2559 24.38CM(9.75IN)HX40.64CM(16IN)HX33.02CM(131IN)D
803R 89536 121 1967 48.26CM(19IN)HX17.78CM(7IN)HX39.37CM(15.50IN)D

T-11

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - VOLTAGE DIFFERENTIAL

ACCURACY - PCT -
OR AS STATED

SPEC QTS ETE NO MFR'S MDL NO TYPE DESIGNATOR/ MFR'S MDL NO FSCM CODE ID NO. PARAMETER

DIMENSIONS IN CM/INS 00110

803DAG 121 1969 34.14CM(13.44IN)HX24.33CM(9.62IN)HX43.82CM(17.25IN)D
89536 121 2560 21.59CM(8.5IN)HX38.10CM(15IN)HX17.78CM(7IN)D
89536 121 1971 21.59CM(8.5IN)HX37.47CM(14.75IN)HX17.78CM(7IN)D
89536 121 1972 24.77CM(9.75IN)HX17.78CM(7IN)HX33.98CM(13.38IN)D
89536 121 1973 21.59CM(8.5IN)HX17.78CM(7IN)HX26.04CM(10.25IN)D

WEIGHT IN KG/LBS 00120

30 021 9038 6.4KG(14LBS)
1002 25778 121 8043 13KG(29LBS)
1412 25778 121 8044 5KG(12LBS)
7409 28480 121 8041 13KG(29LBS)
887AB 89536 121 8042 6KG(14LBS)

ME-202/U 89536 121 0682 13.62KG(30LBS)
ME-2028/U 89536 121 0683 17.25KG(38LBS)
TS-2843/U 89536 121 1210 6.36KG(14LBS)
335A 89536 121 3456 27.24KG(60LBS)
7409 28480 121 1965 21.47KG(47.3LBS)
7419 28480 121 1966 20.88KG(46LBS)
803 89536 121 2559 11.35KG(25LBS)
8038 89536 121 1967 11.35KG(25LBS)
803DAG 89536 121 1969 9.99KG(22LBS)
887-ABAN 89536 121 2560 6.81KG(15LBS)
887A 89536 121 1971 5.90KG(13LBS)
891A 89536 121 1972 5.45KG(12LBS)
893A 89536 121 1973 5.45KG(12LBS)

ENCLOSURE (STYLE) 00130

30 021 9038 MIL-T-28000 STYLE E W/RACK MOUNT CAPABILITY

887AB 89536 121 8042 RACK MOUNT CAPABILITY

DEFINITION OF QTS EYE SPECIFICATIONS

FAMILY NAME - VOLTMETER DIFFERENTIAL

SPEC QTS EYE NO. MFR'S MOL NO	TYPE DESIGNATOR/ MFR'S MODEL NO	FSCM CODE	ID NO.	FAM TYPE	PARAMETER	ACCURACY - PCT - OR AS STATED
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PMR SOURCE(S)/CONSUMPTION 00140

38	021	9038	TYPE III 50,60, AND 400 HZ SINGLE PHASE 115/230VAC ACCT 12	W
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1002	25778	121	8043	50,60,400 S-PHASE 115/230VAC/12	
1412	25778	121	8044	50-500HZ S-PHASE 115/230VAC	
7408	28480	121	8041	50,60,400HZ S-PHASE 115/230VAC/12W	
887A8	89536	121	8042	50-400HZ 115/230VAC/4W W/BATTERY CAPABILITY	

ME-202/U	89536	121	0682	50-60HZ S-PHASE 117/234VAC/175W	
ME-202R/U	89536	121	0683	50-60HZ S-PHASE 117/234VAC/175W	
TS-2843/U	89536	121	1210	50-400HZ S-PHASE 115/230VAC/76W	W/BATTERY CAPABILITY
335A	89536	121	3456	50-60HZ S-PHASE 115/230VAC	
7408	28480	121	1965	50-400HZ S-PHASE 115/230VAC/125W	
7418	28480	121	1966	50-1000HZ S-PHASE 115/230VAC/125W	
803	89536	121	2559	50-400HZ S-PHASE 115/230VAC/85W	
803RR	89536	121	1967	400HZ S-PHASE 120VAC/75W	
803DAG	89536	121	1969	50-400HZ S-PHASE 115/230VAC/85W	
887-ABAN	89536	121	2560	50-400HZ S-PHASE 115/230VAC/5W	
887A	89536	121	1971	50-400HZ S-PHASE 115/230VAC/7W	
891A	89536	121	1972	50-500HZ S-PHASE 115/230VAC/4W	
893A	89536	121	1973	50-500HZ S-PHASE 115/230VAC/4W	W/BATTERY CAPABILITY

MTSF SPECIFIED/PREDICTED 00150

38	021	9038	7500 HRS
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READOUT METHOD(S) 00160

1002	25778	121	8043	METER READOUT W/DIGITAL SELECTOR
1412	25778	121	8044	METER READOUT
7408	28480	121	8041	METER READOUT VIA DIGITAL SELECT
887A8	89536	121	8042	METER

ME-202/U	89536	121	0682	DIAL, METER
ME-202R/U	89536	121	0683	DIALS, METER
TS-2843/U	89536	121	1210	METER, DIGITAL
335A	89536	121	3456	METER

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - VOLTMETER DIFFERENTIAL

SPEC OTS EYE NO. MFR'S MDL NO	TYPE DESIGNATOR/ MFR'S MODEL NO	FSCM	CODE	ID NO.	PARAMETER	ACCURACY -PCT- OR AS STATED
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READOUT METHOD(S) 00160

7413	28480	121	1966	DIGITAL, METER	
803	89536	121	2559	METER	
803A	89536	121	1967	DIAL, METER	
803AG	89536	121	1969	METER	
887-ABAN	89536	121	2560	DIGITAL	
887A	89536	121	1971	METER, DIGITAL	
891A	89536	121	1972	METER	
893A	89536	121	1973	DIGITAL, METER	

PRIMARY INPUT CONNECTOR(S) 00170

38	021	9038	DUAL FEMALE BANANA PLUG
893A	89536	121	1973 BINDING POSTS

ENVIRONMENTAL CONDITIONS 00200

38	021	9038	MIL-T-28000B TYPE III CLASS 5 STYLE E COLOR R
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TEMP OPER/NON-OPERATING 00210

38	021	9038	0 TO 50C/-55 TO 75C
1412	25778	121	8044 -40 TO +70C
887AB	89536	121	8042 0-50C

DEFINITION OF QTS ETE SPECIFICATIONS

FAMILY NAME - VOLTMETER DIFFERENTIAL

ACCURACY -PCT-
OR AS STATED

SPEC QTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

RELATIVE HUMIDITY 00220

38 021 9038 95(+5-0)

ALTITUDE OPER/NON-OPER 00230

38 021 9038 3050M(10000FT)/12000M(40000FT)

VIBRATION LIMIT (MAXIMUM) 00240

38 021 9038 2G

SHOCK, PULSE LEVEL 00250

38 021 9038 30G

FREQ RANGE 2665C

38 021 9038 INPUT FREQ RANGE MEASUREMENT 5HZ TO 5KHZ

1412 25778 121 8044 5HZ TO 100KHZ
887A8 89536 121 8042 20HZ TC 5KHZ

ME-202/U 89536 121 0682 5HZ TO 10KHZ
ME-2028/U 89536 121 0683 5HZ TO 10KHZ
TS-2843/U 89536 121 1210 20HZ TC 5KHZ
741B 28480 121 1966 20HZ TC 100KHZ
8038R 89536 121 1967 5HZ TO 10KHZ
8030AG 89536 121 1969 0 TO 100KHZ

DEFINITION OF OTS EYE SPECIFICATIONS

FAMILY NAME - VOLTmeter DIFFERENTIAL

SPEC OTS EYE NO. MER'S MDL NO. TYPE DESIGNATOR/ FSCM CCODE ID NO. PARAMETER FAW TMDE ACCURACY -PCT-GR AS STATED

IMPEDANCE, INPUT 34400

38 021 9038 NLT 10MEGOM-TC AND 1MEGOM AC

1002 25778 121 8043 100 MEGOMs
 1412 25778 121 8044 100 MEGOM-TC, 1MEGOM-AC
 7408 28480 121 8041 0-100MEGOM INPUT
 887AB 89536 121 8042 10MEGOMs TC 1MEGOM AC

ME-2028/U 89536 121 0683 1MEGOM AT AC, INFINITE AT NULL DC
 TS-2843/U 89536 121 1210 INFINITE AT NULL

NULL MODE 46800

38 021 9038 VOLTAGE VARIATION MEASUREMENT TO 100VDC & 1MV AC

1002 25778 121 8043 100V
 1412 25778 121 8044 -001-TC 100V AC/DC
 7408 28480 121 8041 100V TC 100V IN 4 RANGES
 887AB 89536 121 8042 100V THROUGH 100V IN 7 RANGES

ME-202/U 89536 121 0682 -01 TO 10V

VOLTAGE, AC 84000

38 021 9038 0 TO 100VAC IN NLT 8 RANGES +/-0.02 PCT

887AB 89536 121 8042 0 TO 100VAC

ME-202/U 89536 121 0682 0 TO 500VAC IN 8 RANGES
 ME-2028/U 89536 121 0683 0 TO 500VAC +/-0.02 PCT
 TS-2843/U 89536 121 1210 0 TO 1000VAC +/-0.02 PCT
 741R 28480 121 1966 0 TO 1000VAC +/-0.02 PCT
 803BR 89536 121 1967 0 TO 500VAC +/-0.02 PCT
 803DAS 89536 121 1969 0 TO 500VAC +/-0.02 PCT

DEFINITION OF OTS ETE SPECIFICATIONS

FAMILY NAME - VOLTMETER DIFFERENTIAL

ACCURACY - PCT -
OR AS STATED

SPEC OTS ETE TYPE DESIGNATOR/ FAN TIME
NO WFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

VOLTAGES AC 84000

89536 121 2560 0 TO 1000VAC
89536 121 1971 0 TO 1100VAC
89536 121 1973 0 TO 1100VAC

VOLTAGES DC 84400

38

021 9038 -1000 TO 1000DC IN NMT 8 RANGES

1002 25776 121 8043 +/-0-1100VDC AND 15000VDC W/DIVIDER
1412 25778 121 8044 +/-0 TC 1000VDC
7408 28480 121 8041 1-1000VDC W/DIVIDER-15000VDC

ME-202/U 89536 121 0682 0 TO 500VDC +/-0.05 PCT
ME-2028/U 89536 121 0683 0 TO 500VDC +/-0.05 PCT
TS-2843/U 89536 121 1210 0 TO 1000VDC +/-3 PCT
335A 89536 121 3456 -100UV TC 10K VDC +/-2 PCT
7408 28480 121 1965 0 TO 1000VDC +/-0.001 PCT
7413 28480 121 1966 0 TO 1000VDC +/-0.02 PCT
803 89536 121 2559 0 TO 500VDC +/-0.05 PCT
8038Q 89536 121 1967 0 TO 500VDC +/-1 PCT
8030AG 89536 121 1969 0 TO 500VDC
887-ABAN 89536 121 2560 0 TO 1000VDC +/-3 PCT
887A 89536 121 1971 0 TO 1100VDC
891A 89536 121 1972 0 TO 1100VDC
893A 89536 121 1973 0 TO 1100VDC

APPENDIX J

PARAMETER DATA FOR OTS ETE SPECIFICATION

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents parameter data for the OTS ETE Specification applicable to the nine families considered in Appendixes A through I. The appendix is structured to permit CERCOM directly and completely to review the OTS ETE Specification for each technical parameter considered in the analysis.

2. SUPPORTING DATA

This section contains a reproduction of computer printout Number 8 (CP-8), "OTS ETE Specification Parameter Data", for the nine families analyzed. CP-8 contains the data encoded in Subtask 2A, segregated by technical parameter, of the OTS ETE Specification.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

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OTS ETE SPECIFICATION PARAMETERS

OTS ETE SPECIFICATION NAME	PARAMETER CODE	PARAMETER NAME	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TMDE ID NO	ACCURACY (PCT) CR AS STATED
BRIDGE UNIVERSAL	00100	DIMENSIONS IN CM/INS	25	2	8	008	9025	
	00110	WEIGHT IN KG/LBS						
	00120	ENCLOSURE (STYLE)						
	00130	PMR SOURCE(S)/CONSUMPTION						
	00140	MTBF SPECIFIED/PREDICTED						
	00150	PRIMARY OUTPUT CONNECTOR						
	00180	ENVIRONMENTAL CONDITIONS						
	00200	TEMP OPER/NCN-OPERATING						
	00210	RELATIVE HUMIDITY						
	00220	ALTITUDE OPER/NCN-OPER						
	00230	VIBRATION LIMIT (MAXIMUM)						
	00240	SHOCK, PULSE LEVEL						
	00250	CAPACITANCE RANGE						
	08400	INTERNAL SIGNAL SOURCE						
	25410	EXTERNAL SIGNAL SOURCE						
	25420	INDUCTANCE						
	36800	RESISTANCE MEASUREMENT						
	59600							
		BRIDGE UNIVERSAL						
		49.5CM/19INMX32.5CM/12.5INMX30CM/11.5IN D						
		17KG/37LBS						
		MIL-T-28000 STYLE E W/RACKMOUNT CAPABILITY						
		TYPE III 50,60,400HZ SINGLE PHASE 115/230VAC/15WATTS						
		3500 MRS						
		DUAL FEMALE BANANA JACK						
		MIL-T-28800B TYPE III CLASS 5 STYLE E COLOR R						
		0 TO 50 C / -55 TC 75 C						
		95						
		3050M(10000FT)/12000M(40000FT)						
		26						
		30G						
		1 PF TO 1200 UF IN NMT 8 RANGES						
		SIGNAL SOURCE 1KHZ						
		SIGNAL SOURCE VARIABLE FROM 50HZ TO 20KHZ						
		1 OHM TO 1100 HENRYS IN NMT 8 RANGES						
		10 OHMS TO 12 MEGOHMS IN NMT 8 RANGES						

OTS ETE SPECIFICATION PARAMETERS

OTS ETE SPECIFICATION NAME	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NC
SIGNAL GENERATOR FUNCTION	02	2	A	047	9002
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED		
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION			
WEIGHT IN KG/LBS	00110	44CM(163/4IN)X16CM(6IN)X40CM(15IN)D			
ENCLOSURE (STYLE)	00120	9KG(20LBS)			
PMR SOURCE(S)/CONSUMPTION	00130	MIL-T-28800B STYLE E W/RACK MOUNT CAPABILITY			
MTBF SPECIFIED/PREDICTED	00140	TYPE III 50,60, 400HZ SINGLE PHASE 115/230VAC/50W			
PRIMARY INPUT CONNECTOR(S)	00150	2500 HRS			
ENVIRONMENTAL CONDITIONS	00170	BNC			
TEMP OPER/NCN-OPERATING	00200	MIL-T-28800 TYPE III CLASS 5 STYLE E COLOR R			
RELATIVE HUMIDITY	00210	0 TO 50C/-55 TO 75C			
ALTITUDE OPER/NCN-OPER	00220	95(+5-0)			
VIBRATION LIMIT (MAXIMUM)	00230	3050M(10000FT)/12000M(40000FT)			
SHOCK, PULSE LEVEL	00240	2G			
ATTENUATION,OUTPUT	00250	30G			
DC OFFSET	03600	NLT 50DB W/10DB VERNIER CALIBRATED IN 10B STEPS			
DISTORTION	15600	ADJUSTABLE FROM -10VDC TO +10VDC			
FREQUENCY OUTPUT RANGE	19200	DISTORTION NGT .5 PCT			
FREQ RESPONSE	25400	.1HZ TO 10MHZ IN NMT 10 RANGES	+/-5 PCT		
HARMONICS	26800	VARIATION OF OUT PUT LEVEL BETWEEN BANDS NGT	+/-10B		
IMPEDANCE,OUTPUT	29000	SINE WAVE NLT 30DB BELOW FUNDAMENTAL FREQ			
LINEARITY	35200	50 OHMS IMPEDANCE OUTPUT			
OUTPUT SIGNALS	39500	SANTOOTH & TRIANGLE WAVE LINEARITY ERROR AT 100HZ	LT 1 PCT		
PULSE WIDTH	50000	SELECT WAVEFORMS SINE,SQUARE,PULSE, TRIANGLE & SANTOOTH			
PULSE MOD, TRANS TIME	56010	NLT .1US TO 5 SEC			
VOLTAGE,OUTPUT	56430	PULSE TRANS TIME LT 21 NANODSEC			
	85600	10V P/P AT 50 OHM LCAD	+/-10B		

OTS ETE SPECIFICATION PARAMETERS

OTS ETE SPECIFICATION NAME	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO
SIGNAL GENERATOR PULSE	04	2	A	050	9004

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	44CM(17IN)X18CM(61/2IN)X36CM(131/2IN)D	
ENCLOSURE (STYLE)	00120	7KG(15.5LBS)	
PWR SOURCE(S)/CONSUMPTION	00130	MIL-T-28800 STYLE W/RACK MOUNT CAPABILITY	
MTBF SPECIFIED/PREDICTED	00140	TYPE III 50-60 AND 400HZ SINGLE PHASE 115/230VAC/75W	
PRIMARY INPUT CONNECTOR(S)	00150	2000 HRS	
ENVIRONMENTAL CONDITIONS	00170	SERIES-BNC	
TEMP OPER/MCN-OPERATING	00200	MIL-T-28800 TYPE III CLASS 5 STYLE E COLOR R	
RELATIVE HUMIDITY	00210	0 TO 50C/-55 TO 75C	
ALTITUDE OPER/MCN-OPER	00220	95(+5-0)	
VIBRATION LIMIT (MAXIMUM)	00230	3050M(10000FT)/12000M(40000FT)	
SHOCK, PULSE LEVEL	00240	2G	
IMPEDANCE-OUTPUT	00250	30G	
OUTPUT SIGNALS	35200	50 OHMS	
PULSE WIDTH	50000	PULSE OUTPUT W/VARIABLE PULSE WIDTH	
PULSE MOD, TRANS TIME	54010	VARIABLE FROM 10 NANOSECOND TO 1 SECOND	+/- .002PCT
PULSE RATE	54430	LT 5 MILLISECONDS	
VOLTAGE-OUTPUT	56600	10 TO 10 MILLION PULSES PER SEC	.005 PCT
	85600	VARIABLE W/MAXIMUM CF 3V ACROSS 50 OHM LOAD	

OTS EYE SPECIFICATION PARAMETERS

OTS EYE SPECIFICATION NAME	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO
SIGNAL GENERATOR UHF-A	15	2	A	107	9015

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR UHF	
WEIGHT IN KG/LBS	00110	50CM(19IN)X50CM(19IN)X52CM(20IN)D	
ENCLOSURE (STYLE)	00120	27KG(60LBS)	
PMR SOURCE(S)/CONSUMPTION	00130	MIL-T-28800B STYLE E W/PACK MOUNT CAPABILITY	
MTBF SPECIFIED/PREDICTED	00140	TYPE III 50.60 6400HZ SINGLE PHASE 115/230VAC/215W	
PRIMARY INPUT CONNECTOR(S)	00150	2000 HRS	
ENVIRONMENTAL CONDITIONS	00170	BNC-SERIES, RF N-SERIES	
TEMP OPER/NCN-OPERATING	00200	MIL-T-28800B TYPE III CLASS 5, STYLE E, COLOR R	
RELATIVE HUMIDITY	00210	0 TO 50C/-55 TO 75C	
ALTITUDE OPER/NON-OPER	00220	95(45-0)	
VIBRATION LIMIT (MAXIMUM)	00230	3050M(10000FT)/1200CM(40000FT)	
SHOCK, PULSE LEVEL	00240	2G	
AMP MOD-EX	00250	30G	
AMP MOD-INT, SENSITIVITY	01200	20HZ TO 20KHZ BY EXTERNAL SINE OR SQUARE WAVE CAPABILITY	
ATTENUATION, OUTPUT	01230	5 VOLTS P/P TO PRODUCE MOD LEVEL OF NLT 90 PCT	
DISTORTION, INTERNAL	01640	NGT 1 PCT W/O-50 PCT MCC AND NGT 3PCT 50-90PCT MOD	+/- .208 PCT
FREQ MOD-INT	03600	RANGE NLT 100DB W/10DB VERNIER DIAL AT 108 STEPS	
FREQ MOD-INT, SPURIOUS AMP	19600	MODULATED SIGNAL NGT	
FREQ RANGE	26020	INT & EXT 3 TO 300KHZ DEV CAPABILITY	+/- 10 PCT
FREQ RESPONSE	26440	INTERNAL SQ WAVE MCC SIGNAL 1KHZ	5 PCT
FREQ STABILITY, TEMPERATURE	26441	WHEN VIBRATED-NGT 200HZ DEVIATION AT 600/800/1000MHZ	+/- 1 PCT
IMPEDANCE, INPUT	26600	AT ANY FREQ W/DEVIATION SET AT 40KHZ-NGT	+/- 208 PCT
MODULATION VOLTAGE	26800	500MHZ TO 1.2GHz W/NMT 5 BANDS	+/- 5 PCT
SPURIOUS FREQ	27000	OVER ANY BAND NGT	+/- 10 PCT
STANDING WAVE RATIO (SWR)	27220	CARRIER SHIFT W/MED FREQ NGT	
VOLTAGE, OUTPUT	34400	DRIFT NGT .01 PCT DURING 1 HOUR MIL-T-28800	
	35200	600 OHMS	
	42600	50 OHMS	
	42601	AT 10KHZ DEV IN RANGE FROM 100HZ TO 15KHZ NGT	
	68000	FROM VOLTAGE REQUIRED AT 1KHZ	
	68400	30DB BELOW UNMODULATED CARRIER LEVEL	
	69600	NGT 25HZ AT ANY FREQ	
	85600	LT 2.0 TO 1	
		RF NLT .5V RMS ACROSS 50 OHM LOAD	

OTS ETE SPECIFICATION PARAMETERS

OTS ETE SPECIFICATION NAME	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TIME 10 MO
SIGNAL GENERATOR UHF-B	16	2	A	107	9016
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR UHF			
WEIGHT IN KG/LBS	00110	50CM(19IN)HX31.5CM(12IN)HX52.5CM(20IN)D			
ENCLOSURE (STYLE)	00120	27KG(60LBS)			
PNR SOURCE(S)/CONSUMPTION	00130	MIL-T-28800B STYLE E W/RACKMOUNT CAPABILITY			
MTBF SPECIFIED/PREDICTED	00140	TYPE III 50-60 AND 400HZ SINGLE PHASE 115/230VAC/240W			
PRIMARY INPUT CONNECTORS	00150	2000 HRS			
ENVIRONMENTAL CONDITIONS	00170	BNC SERIES, RF A-SERIES			
TEMP OPER/MON-OPERATING	00200	MIL-T-28800B TYPE III CLASS 5, STYLE E, COLOR R			
RELATIVE HUMIDITY	00210	0 TO 50C/-55 TO 75C			
ALTITUDE OPER/NON-OPER	00220	95(±5-0)			
VIBRATION LIMIT (MAXIMUM)	00230	3050M(10000FT)/1200CM(40000FT)			
SHOCK, PULSE LEVEL	00240	2G			
AMP MOD-EX	00250	30G			
AMP MOD-INT, SENSITIVITY	01200	20HZ TO 20KHZ BY SINE OR SQ WAVE EXT AM			
AMP MOD-INT, DISTORTION	01230	NGT 5V P/P SINE OR SQ-WAVE TO PRODUCE 90 PCT MOD	10+ PCT		
AMP MOD-INT, SPURIOUS MOD	01600	SELECTIVE BETWEEN 400-1000MHZ SINE & SQ-WAVE			
ATTENUATION, OUTPUT	01640	DISTORTION OF AM CARRIER NOT TO EXCEED 2 PCT			
DISTORTION, INTERNAL	01650	AT ANY FREQ AND DEV SET AT 40KHZ SPURIOUS AM NGT	5 PCT		
FREQ MOD	03600	RANGE MLT 100DB W/100B VERNIER DIAL AT 1DB STEPS	±/-20B PCT		
FREQ RANGE	19600	MOD SIGNAL DISTORTION ON ALL FREQ NGT			
FREQ RESPONSE	26020	INT & EXT 3 TO 300KHZ DEV CAPABILITY			
FREQ SHIFT	26440	WHEN VIBRATED-NGT 200HZ DEVIATION AT 900/1600/2200MHZ	±/-2 PCT		
FREQ STABILITY, TEMPERATURE	26600	800MHZ TO 2.4GHZ W/MT 5 BANDS	±/-10B PCT		
IMPEDANCE, INPUT	27000	FREQ OUTPUT LEVEL VARIATION NGT ±/-10B ON ANY BAND	±/-5 PCT		
IMPEDANCE, OUTPUT	27220	CARRIER SHIFT W/MT FREQ NGT			
MODULATION VOLTAGE	34400	FREQ DRIFT NGT .01 PCT AFTER 1 HR WARM UP	±/-5 PCT		
SPURIOUS FREQ	35200	600 OHM AM INPUT			
SPURIOUS NOISE OUTPUT	42600	50 OHMS			
STANDING WAVE RATIO (SWR)	68000	DIFFERENCE BETWEEN 10KHZ & 1KHZ DEV SHOULD NOT VARY	±/-10 PCT		
VOLTAGE, OUTPUT	68400	30DB BELOW LEVEL CF UNMODULATED CARRIER	±/-10B		
	69600	NGT 25HZ AT ANY FREQ			
	85600	LT 2-0 TO 1			
		RF MLT .5V RMS ACROSS 50 OHM LOAD			

SPEC
NO

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OTS ETE SPECIFICATION PARAMETERS

OTS ETE SPECIFICATION NAME	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO
SIGNAL GENERATOR VHF-B	18	2	A	106	9018
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR VHF (AVIONIC)			
WEIGHT IN KG/LBS	00110	50CM(19IN)X16CM(6IN)X47CM(18IN)			
ENCLOSURE (STYLE)	00120	21KG(47LBS)			
PRN SOURCE(S)/CONSUMPTION	00130	MIL-T-28800B STYLE E W/RACKMOUNT CAPABILITY			
MTBF SPECIFIED/PREDICTED	00140	TYPE III 50,60, AND 400-HZ SINGLE PHASE 115/230VAC/125W			
PRIMARY INPUT CONNECTOR(S)	00150	2000 HRS			
ENVIRONMENTAL CONDITIONS	00170	BNC SERIES RF-N-SERIES			
TEMP OPER/NCN-OPERATING	00200	MIL-T-28800B TYPE III CLASS 5, STYLE E, COLOR R			
RELATIVE HUMIDITY	00210	0 TO 50C/-55 TO 75C			
ALTITUDE OPER/NCN-OPER	00220	95(+5-0)			
VIBRATION LIMIT (MAXIMUM)	00230	3050M(10000FT)/12000M(40000FT)			
SHOCK, PULSE LEVEL	00240	2G			
VOR/ILS FAA STDS	00250	30G			
AMP MOD-EX	00260	VOR / ILS FAA STANDARDS			
AMP MOD-EX-SENSITIVITY	01200	20KHZ TO 20KHZ BY INT OK EXTERNAL SINE OR SQ WAVE			
AMP MOD-INT	01230	EXT SINE OR SQ WAVE LT 5V P/P TO PRODUCE MOD OF 90 PCT	10+ PCT		
AMP MOD-INT, AMPL MOD FRE	01600	SELECTIVE BETWEEN 400-1000HZ	2 PCT		
AMP MOD-INT-DISTORTION	01620	0-90 PCT AM BY INT & EXT SIGNAL SOURCES	+/--20B		
ATTENUATION, OUTPUT	01640	DISTORTION OF AM CARRIER NGT			
FREQ MOD	03600	NLT 1200B W/100B VERNIER IN 1CB STEPS			
FREQ MOD-INT, SPURIOUS AMP	26020	INTERNAL AND EXTERNAL DEV CAPABILITY OF 0-40KHZ RMS	5 PCT		
FREQ RANGE	26440	AT ANY FREQ W/DEVIATION SET AT 40KHZ NGT	+/--5 PCT		
FREQ RESPONSE	26600	450KHZ TO 520MHZ	+/--20B		
FREQ STABILITY	27200	CARRIER FREQUENCY SHIFT W/MOD FREQ NGT	-005 PCT		
IMPEDANCE, INPUT	34400	600 OHMS	+/--5 PCT		
IMPEDANCE, OUTPUT	35200	CARRIER FREQUENCY SHIFT W/MOD FREQ NGT			
MODULATION VOLTAGE	42600	IMPEDANCE OUTPUT 50 OHMS	+/--10 PCT		
PULSE MOD (PPH)-EX	56000	DIFFERENCE BETWEEN 10KHZ & 1KHZ DEV SHALL NOT VARY			
PULSE MOD (PPH)-INT	56400	EXTERNAL SIGNAL MOD CAPABILITY	H		
SPURIOUS FREQ	68000	INTERNAL PM CAPABILITY AT 50 TO 5000PPS W/10-40USEC WIDT			
SPURIOUS NOISE OUTPUT	68400	HARMONIC CONTENT LEVEL 30DB BELOW UNMODULATED CARRIER			
STANDING WAVE RATIO (SWR)	69600	RF NOISE LEVEL AT LEAST 35DB BELOW CARRIER LEVEL			
VOLTAGE, OUTPUT	85600	LT 1-2			
		RF VOLTAGE NLT 1VOLT ACROSS 50 OHM LOAD	+/--10B		

OTS ETE SPECIFICATION PARAMETERS

OTS ETE SPECIFICATION NAME	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TMDE ID NC
STROBSCOPE	95	2	E	065	9095
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS	00100	STROBSCOPE			
WEIGHT IN KG/LBS	00110	30-5CM(12IN)HX20.3CM(8IN)HX38.1CM(15IN)D			
PWR SOURCE(S)/CONSUMPTION	00120	9KG(20LBS)			
MTBF SPECIFIED/PREDICTED	00140	TYPE III 50-60-400HZ SINGLE PHASE 115/230VAC/30W			
PRIMARY INPUT CONNECTOR(S)	00150	NLT 2000 HRS			
ENVIRONMENTAL CONDITIONS	00170	TIP-RING SLEEVE AUDIO PLUG			
TEMP OPER/MCN-OPERATING	00200	MIL-T-28800B TYPE III CLASS 5 STYLE 5 COLOR R			
RELATIVE HUMIDITY	00210	0 TO 50C/-55 TO 75C			
ALTITUDE OPER/NON-OPER	00220	95(+5-0)			
VIBRATION LIMIT (MAXIMUM)	00230	3050M(10000FT)/1200M(40000FT)			
SHOCK, PULSE LEVEL	00240	2G			
FLASH CHARACTERISTICS	00250	30G			
LIGHT INTENSITY	24400	RANGE FROM 110 TO 25,000 FLASHES PER MINUTE			
SYNCHRONIZATION, INPUT	39600	-5X10 CANDELAS			
	74000	EXTERNAL SOURCE SYNC CAPABILITY			

OTS ETE SPECIFICATION PARAMETERS

OTS ETE SPECIFICATION NAME	PARAMETER CODE	PARAMETER	SPEC NO	TASK NO	GROUP LTR	FAMILY CODE	TIME IC NO	ACCURACY (PCT) OR AS STATED
VOLTMETER DIFFERENTIAL			38	2	8	021	9036	
PARAMETER NAME	PARAMETER CODE	PARAMETER						
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL						
WEIGHT IN KG/LBS	00110	26CM(10IN)X23.5CM(9IN)X40.5CM(15.1/2IN)D						
ENCLOSURE (STYLE)	00120	6.4KG(14LBS)						
PMR SOURCE(S)/CONSUMPTION	00130	MIL-T-28000 STYLE E W/RACK MOUNT CAPABILITY						
MTBF SPECIFIED/PREDICTED	00140	TYPE III 50,60, AND 400 HZ SINGLE PHASE 115/230VAC/NGT 12						
PRIMARY INPUT CONNECTOR(S)	00150	7500 HRS						
ENVIRONMENTAL CONDITIONS	00170	DUAL FEMALE BANANA PLUG						
TEMP OPER/NCN-OPERATING	00200	MIL-T-28000B TYPE III CLASS 5 STYLE E COLOR R						
RELATIVE HUMIDITY	00210	0 TO 90C/-55 TO 75C						
ALTITUDE OPER/NON-OPER	00220	95(+5-0)						
VIBRATION LIMIT (MAXIMUM)	00230	3050M(10000FT)/12000M(40000FT)						
SHOCK, PULSE LEVEL	00240	2G						
FREQ RANGE	00250	30G						
IMPEDANCE, INPUT	26650	INPUT FREQ RANGE MEASUREMENT 5HZ TO 5KHZ						
NULL MODE	34400	NLT 10MEGOM-DC AND 1MEGOM AC						
VOLTAGE, AC	46800	VOLTAGE VARIATION MEASUREMENT TO 1000VDC & 1MV AC						
VOLTAGE, DC	84400	0 TO 1000VAC IN NMT 8 RANGES						
		-1000 TO 1000DC IN NMT 8 RANGES						
								+/-0.02 PCT
								+/-0.02 PCT

PAGE 56 - SYSLOG LISTING FROM DDOS (INCLUDES AR LINES)

8G VOS211 70C AWAITING WORK
8G // JOB PRINT8 601076010 DEBBIE YOUNG
8G 14.36.01
8G * JOB COMB237
8G 79051 RCD IN 0000000, OUT 0004842, ESTIMATED 0000000
8G 79061 RCD INSERT 0004842, DELETE 0000000
8G 71011 END SORT PH
8G 79051 RCD IN 0004842, OUT 0000000, ESTIMATED 0000000
8G 79061 RCD INSERT 0000000, DELETE 0004842
8G 73021 EDJ
8G * JOB PRINT8 601076010 DEBBIE YOUNG
8G 79051 RCD IN 0000000, OUT 0000238, ESTIMATED 0000000
8G 79061 RCD INSERT 0000238, DELETE 0000000
8G 71011 END SORT PH
8G 79051 RCD IN 0000238, OUT 0000000, ESTIMATED 0000000
8G 79061 RCD INSERT 0000000, DELETE 0000238
8G 73021 EDJ
8G EDJ PRINT8
8G 14.40.22 DURATION 00.04.21

APPENDIX K

PARAMETER DATA OF OTS ETE

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents parameter data of the OTS ETE applicable to the nine families considered in Appendixes A through I. The appendix is structured to permit CERCOM directly and completely to review the OTS ETE technical parameters considered in the analysis.

2. SUPPORTING DATA

This section contains a reproduction of computer printout Number 9 (CP-9), "OTS ETE Parameter Data", for the nine families analyzed. CP-9 contains the data encoded in Subtask 2A, segregated by technical parameter, for the OTS ETE.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less Than
- PCT - Percent
- W/ - With

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QTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	CIS ETE PRICE
1683	24665	AUTOMATIC RLC BRIDGE	2	8	008	8003	5495

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	AUTOMATIC RLC BRIDGE	
WEIGHT IN KG/LBS	00110	48CM(19IN)X20CM(8IN)X16CM(6IN)X25IN(10)	
PWR SOURCE(S)/CONSUMPTION	00120	28KG(60LBS)	
CAPACITANCE RANGE	00140	50-60HZ 5S-PHASE 105-125.200-250VAC/110W	+/-1 PCT
INTERNAL SIGNAL SOURCE	08400	1PF TC 23000UF	
EXTERNAL SIGNAL SOURCE	25410	1KHZ	
INDUCTANCE	25420	PROGRAMMABLE OPTICS	
RESISTANCE MEASUREMENT	36800	0-100UH TO 200H	+/-1 PCT
	59600	0.001PILLIUM TC 2MEGCHMS IN 9 RANGES	+/-1 PCT

QTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	CIS ETE PRICE
315A	00000	IMPEDANCE BRIDGE	2	8	008	8004	0545

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	WINT-BRIDGE	
WEIGHT IN KG/LBS	00110	27CM(10IN)X20CM(8IN)X22CM(9IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	5KG(11LBS)	
CAPACITANCE RANGE	00140	3 C CELL BATTERIES W/POWER PACK OPTION	+/-1 PCT
INTERNAL SIGNAL SOURCE	08400	0-1200 MFD	
EXTERNAL SIGNAL SOURCE	25410	1KHZ	
INDUCTANCE	25420	20-20KHZ	
RESISTANCE MEASUREMENT	36800	0-1200 H	+/-1 PCT
	59600	0-12 MEGOHM	+/-25 PCT

OTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME TO NO	OTS ETE PRICE
040312	77569	RCL BRIDGE	2	B	008	8006	0525
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/TNS	00100	RCL BRIDGE PM6302					
WEIGHT IN KG/LRS	00110	14CM(61)INHX23CM(SI)INHX28CM(11)IN(1)					
ENCLOSURE (STYL'S)	00120	15KG(7135)					
POWER SOURCE(S)/CONSUMPTION	00130	YES					
CAPACITANCE RANGE	00140	48-60HZ 5-0HAST 115/230VAC/3.5W					
INTERNAL SIGNAL SOURCE	00400	1PF TO 1000PF					
INDUCTANCE	25410	100 E 1KHZ					
RESISTANCE MEASUREMENT	36800	104 TO 1000H					
	59600	.100HV TO 10MEGCHMS IN 9 RANGES					

OTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME TO NO	OTS ETE PRICE
TF1313A	09555	UNIVERSAL BRIDGE	2	B	008	8007	1495
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/TNS	00100	UNIVERSAL BRIDGE					
WEIGHT IN KG/LRS	00110	30CM(12)INHX50CM(20)INHX26CM(10)IN(1)					
CAPACITANCE RANGE	00120	13KG(29185)					
INTERNAL SIGNAL SOURCE	00400	.1PF TO 1100PF					
EXTERNAL SIGNAL SOURCE	25410	1MHZ 6 10KHZ					
INDUCTANCE	36800	20-20KHZ EXT					
RESISTANCE MEASUREMENT	59600	.1UH TO 110H					
		.0030HMS TO 110MEGCHMS					

QTS EYE PARAMETERS

NEPS MODEL NO	FSCN	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME TO NO	QTS EYE PRICE
4260A	28480	UNIVERSAL BRIDGE	2	8	008	8008	1065
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS	00103	UNIVERSAL BRIDGE 4260A					
WEIGHT IN KG/LBS	00110	19CM(8IN)X17CM(7IN)X28CM(11IN)D					
ENCLOSURE (STYLE)	00120	5KG(11LBS)					
PWP SOURCE(S)/CONSUMPTION	00130	NO RACK MOUNT CAPABILITY					
CAPACITANCE RANGE	00140	50-60HZ S-PHASE 115/230VAC/7W					
INTERNAL SIGNAL SOURCE	20410	1000UF TO 1000UF					
EXTERNAL SIGNAL SOURCE	20420	1KHZ					
INDUCTANCE	36800	20-20KHZ EXT					
RESISTANCE MEASUREMENT	59600	1000UH TO 1000H					
		10 CHMS TO 10 MEGOHMS					
		IN 7 RANGES					
		IN 7 RANGES					

OTS EYE PARAMETERS

REF'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME IO NO	OTS EYE PRICE
FG502	80009	SIGNAL GENERATOR FUNCTION	2	A	047	9011	0550
		PARAMETER NAME	PARAMETER CODE	PARAMETER X			
				ACCURACY (PCT) OR AS STATED			
		FREQUENCY OUTPUT RANGE	00100	SIGNAL GENERATOR FUNCTION			
		OUTPUT SIGNALS	25400	.1HZ TO 11MHZ			
			50000	SINE, SQUARE, TRIANGLE, PULSE AND SAWTOOTH			

OTS EYE PARAMETERS

REF'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME IO NO	OTS EYE PRICE
7030	21793	SIGNAL GENERATOR FUNCTION	2	A	047	8012	0595
		PARAMETER NAME	PARAMETER CODE	PARAMETER X			
				ACCURACY (PCT) OR AS STATED			
		FREQUENCY OUTPUT RANGE	00100	SIGNAL GENERATOR FUNCTION			
		IMPEDANCE OUTPUT	25400	.000+ TO 11MHZ			
			35200	50 OHMS			

CTS ETE PARAMETERS

MEP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	CTS EYE PRICE
142	23338	SIGNAL GENERATOR FUNCTION	2	A	047	8013	0695

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	22CM(9IN)X13CM(5IN)X29CM(12IN)	
PAR SOURCE(S)/CONSUMPTION	00120	3-6KG(8LBS)	
FREQUENCY OUTPUT RANGE	00140	50-100KHZ S-PHASE 105-125/200-250VAC/30W	
IMPEDANCE, OUTPUT	25400	10005HZ TC 10MHZ	
LINEARITY	35200	50 OHMS	
OUTPUT SIGNALS	39500	LT .0005	
PULSE MOD, TRANS TIME	50000	SINE, SQUARE, TRIANGLE, PULSE AND SAWTOOTH WAVE FORMS	
VOLTAGE, OUTPUT	56430	20 MAMPSEC	
	85600	4V P/P AT 50 OHM LC	

CTS ETE PARAMETERS

MEP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	CTS EYE PRICE
33124	28480	SIGNAL GENERATOR FUNCTION	2	A	047	8014	0980

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	10CM(4IN)X12CM(5IN)X13CM(5IN)	
ATTENUATION, OUTPUT	00120	4KG(9LBS)	
FREQUENCY OUTPUT RANGE	03600	REL TO TC CONTINUOUS CONTROL	
HARMONICS	25400	1HZ TC 13PHZ	
IMPEDANCE, OUTPUT	29000	GT 300P	
LINEARITY	35200	50 OHMS	
OUTPUT SIGNALS	39500	SANTOOTH, SQUARE, SINE, TRIANGLE AND PULSE	
VOLTAGE, OUTPUT	50000	10V P/P AT 50 OHM LC	
	85600		

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from

QTS EYE PARAMETERS

MFR'S MODEL NO	FSCN	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	MODE ID NO	QTS EYE PRICE
2000	88865	SIGNAL GENERATOR FUNCTION	2	A	047	8015	0095

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN C4/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	22CM(9IN)X13CM(5IN)X29CM(12IN)D	
ENCLOSURE (STYLE)	00120	5KG(11.2LBS)	
PAR SOURCE(S)/CONSUMPTION	00130	RACK MOUNT CAPABILITY	
FREQUENCY OUTPUT RANGE	00140	50-400HZ S-PHASE 105-125/210-250VAC/50W	
HARMONICS	25400	003HZ TO 30MHZ	
IMPEDANCE OUTPUT	29000	22DB BELOW FREQ	
OUTPUT SIGNALS	35200	50 OHMS	
VOLTAGE OUTPUT	53000	SINE, SQUARE, TRIANGLE, RAMP, PULSES	
	85600	30V P/P AT 50 OHM LOAD	

+/-2 PCT

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4-6

QTS ETE PARAMETERS

MPR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
PG508	90009	SIGNAL GENERATOR PULSE	2	A	050	8016	1100

ACCURACY (PCT)
OR AS STATEDPARAMETER NAME
PARAMETER CODE
PARAMETER

00100 SIGNAL GENERATOR PULSE
00110 15CM(8IN)X22CM(9IN)X39CM(15IN)D
00130 PACK MOUNT CAPABILITY
00140 50-60-400HZ 5-PHASE 115/230VAC/
35200 50 OHMS
56010 5NS TC 50MS
56010 5HZ TC 50MHZ
85600 47-5V ACROSS 50 CHM LOAD

QTS ETE PARAMETERS

MPR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
302A	26483	SIGNAL GENERATOR PULSE	2	A	050	8017	0425

ACCURACY (PCT)
OR AS STATEDPARAMETER NAME
PARAMETER CODE
PARAMETER

00100 SIGNAL GENERATOR PULSE
00110 19CM(8IN)X11CM(4IN)X23CM(8IN)D
00120 3KG(7LBS)
00140 50-60-400HZ 5-PHASE 115/230VAC/20W
35200 50 OHMS
56010 10NSEC
56010 LT 5NSEC
56030 10HZ TC 50MHZ
85600 TRIGGERING CAPABILITY
85600 1.5V ACROSS 50 CHM LOAD

QTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TMOE TO NO	QTS ETE PRICE
110R	15933	SIGNAL GENERATOR PULSE	2	A	050	8018	1275

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
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DIMENSIONS IN CM/INS
 WEIGHT IN KG/LBS
 ENCLOSURE (STYLE)
 PWR SOURCE(S)/CONSUMPTION
 TEMP OPER/NON-OPERATING
 IMPEDANCE, OUTPUT
 PULSE WIDTH
 PULSE MOD, TRANS TIME
 PULSE RATE
 TRIGGERING
 VOLTAGE, OUTPUT

SIGNAL GENERATOR PULSE
 00100 43CM(17IN)X13CM(5IN)X35CM(14IN)D
 00120 10KG(25LBS)
 00130 RACK MOUNT CAPABILITY
 00140 50-60-400HZ 5-PHASE 115/230VAC/150W
 0-50C
 35200 50 OHMS
 56010 3NSEC TO 5NSEC
 56430 1.3NSEC RISE & FALL
 56600 0 TO 125MHZ
 80800 TRIGGERING CAPABILITY FROM 0-50MHZ
 85600 10MV TC 10V ACROSS 50 OHM LOAD

QTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TMOE TO NO	QTS ETE PRICE
101A	00000	SIGNAL GENERATOR PULSE	2	A	050	8019	0195

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
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14PEDANCE, OUTPUT
 PULSE WIDTH
 PULSE MOD, TRANS TIME
 PULSE RATE
 VOLTAGE, OUTPUT

00100 SIGNAL GENERATOR PULSE
 35200 50 OHMS
 56010 50NSEC TO 500NSEC
 56430 5NSEC
 56600 1HZ TC 5MHZ
 85600 3-3V P/P

QTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME TO NG	QTS ETE PRICE
P22	07421	SIGNAL GENERATOR PULSE	2	A	050	8020	9575

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN C4/1VS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	43CM(17IN)XK9CM(4IN)X34CM(14IN)C	
ENCLOSURE (STYLE)	00120	7-2KGL1SLRS)	
PWR SOURCE(S)/CONSUMPTION	00130	BACK ACUNT CAPABILITY	
IMPEDANCE, OUTPUT	00140	50+80+450HZ S-PHASE 115/230VAC/	
PULSE WIDTH	35200	50 OHMS	
PULSE MOD, TRANS TIME	56010	10NSEC TO 1SEC	
PULSE RATE	56430	3-5NSEC	
VOLTAGE, OUTPUT	56600	0 TO 50MHZ	
	85600	10V ACROSS 50 OHM LOAD	

OTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
6201	03782	SIGNAL GENERATOR UHF-A	2	A	107	8021	4800

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
AMP MOD-EX	00100	SIGNAL GENERATOR UHF-A	
FREQ MOD-INT	01200	20 TC 500KHZ	
FREQ MOD-INT	26400	1KHZ	
FREQ RANGE	26400	400 & 1KHZ	
VOLTAGE OUTPUT	26600	7-75MHZ TO 1024MHZ W/MODULE PLUG-IN 1024	
	85600	2.2V ACROSS 50 OHM LOAD	

OTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
612A	28460	SIGNAL GENERATOR UHF-A	2	A	107	8022	3600

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR UHF-A	
WEIGHT IN KG/LBS	00110	34(147A)M462PM(177A)H455CM(22IN)C	
PWR SOURCE(S)/CONSUMPTION	00120	25KG(55LBS)	
AMP MOD-EX	00140	50-400HZ S-PHASE 115/230VAC/215W	
ATTENUATION OUTPUT	01200	20HZ TC 5PHZ	
FREQ RANGE	01200	0-1270PM	
IMPEDANCE OUTPUT	26600	450 TC 1230MHZ	
VOLTAGE OUTPUT	35200	50 CHPS	
	85600	.1UV TC .5V	

OTS EYE PARAMETERS

MPR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS EYE PRICE
SWAI	23340	SIGNAL GENERATOR UHF-A	2	A	107	8023	
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
READOUT METHOD(S)	00100	SIGNAL GENERATOR UHF-A					
AMP MOD-EX	00160	METER VIA DIGITAL C1PL					
FREQ MOD-INT	01200	1KHZ TC 10MHZ					
FREQ RANGE	26400	1KHZ SC-NAVE					
IMPEDANCE, OUTPUT	26600	-5 TC 1.8GHZ					
VOLTAGE, OUTPUT	35200	50 OHMS					
	85600	.75V					

OTS EYE PARAMETERS

MPR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS EYE PRICE
125	12678	SIGNAL GENERATOR	2	A	107	8024	4250
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR UHF-B					
DIMENSIONS IN CM/INS	00110	30CM(12IN)X50CM(20IN)X50CM(20IN)D					
WEIGHT IN KG/LBS	00120	30CM(12IN)X50CM(20IN)X50CM(20IN)D					
PWR SOURCE(S)/CONSUMPTION	00140	55KG(120LBS)					
READOUT METHOD(S)	00160	50-60HZ S-PHASE 115/230VAC/400W					
AMP MOD-EX	01200	50-60HZ S-PHASE 115/230VAC/400W					
FREQ MOD-INT	01600	METER VIA DIGITAL SELECT					
FREQ RANGE	26400	METER VIA DIGITAL C1PL SELECT					
FREQ RANGE	26650	SQ-WAVE					
IMPEDANCE, OUTPUT	26600	SQ-WAVE					
VOLTAGE, OUTPUT	35200	1000HZ INTERNAL					
	85600	1KHZ INTERNAL					
	85600	200PHZ TC 3GHZ					
	85600	200-3000PHZ					
	85600	50 OHMS					
	85600	50 OHMS					
	85600	PULSE MOD					
	85600	0-6TV					
	85600	0 TO 90M					

QTS ETE PARAMETERS

WFP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
6202	25776	SIGNAL GENERATOR	2	A	107	8025	

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR
WEIGHT IN KG/LBS	00110	33CM(13IN)WX28CM(11IN)HX43CM(17IN)D
PWR SOURCE(1ST)/CONSUMPTION	00120	11.4KG(25LBS)
FREQ MOD-INT	00140	115VAC
FREQ RANGE	26400	100HZ SINEWAVE & 50 TC 1000 PPS
IMPEDANCE, OUTPUT	26600	1 TO 1000MHZ
OUTPUT SIGNALS	35200	50 CHMS
SPURIOUS FREQ	50000	CM,AP & PM
STANDING WAVE RATIO (SWR)	68000	LT 25 DB BELCM SIGNAL
VOLTAGE, OUTPUT	69600	LT 2-1
	85600	-70DBM TO +100DBM

QTS ETE PARAMETERS

WFP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
6301	25778	SIGNAL GENERATOR UHF-B	2	A	107	8026	

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR UHF-B
WEIGHT IN KG/LBS	00110	43CM(17IN)WX25CM(10IN)HX53CM(21IN)D
ENCLOSURE (STYLE)	00120	30KG(65LBS)
AMP MOD-INT	00130	50HZ TC 10KHZ SQ-WAVE
FREQ RANGE	01600	800MHZ TC 2GHZ
IMPEDANCE, INPLT	26600	600 CHMS
IMPEDANCE, OUTPUT	34400	50 CHMS
PULSE MOD (PM)-INT	35200	PULSE MOD
	56400	

QTS EYE PARAMETERS

NER'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS EYE PRICE
8614	24490	SIGNAL GENERATOR UHF-B	2	A	107	8027	4300
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				

DIMENSIONS IN CM/INS
 DIMENSIONS IN CM/INS
 WEIGHT IN KG/LBS
 ENCLOSURE (STYLE)
 PWR SOURCE(S)/CONSUMPTION
 AMP MOD-EXT
 FREQ RANGE
 VOLTAGE OUTPUT

SIGNAL GENERATOR UHF-B
 43CM(17IN)X14CM(6IN)X47CM(18IN)
 43CM(17IN)X14CM(6IN)X47CM(18IN)
 20KG(43LBS)
 PACK CAPABILITY
 50-60HZ S-PHASE 115-230V AC/125W
 DC TC 1MHZ
 950 TC 1050 SQ-WAVE
 900 TC 2400 MGH
 -78V AT 50 CH* LCAD

Q0100
 Q0110
 Q0110
 Q0120
 Q0130
 Q0140
 Q1200
 Q1600
 26600
 85600

QTS EYE PARAMETERS

NER'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS EYE PRICE
11058	82199	SIGNAL GENERATOR UHF-B	2	A	107	8028	2400
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				

DIMENSIONS IN CM/INS
 WEIGHT IN KG/LBS
 ENCLOSURE (STYLE)
 PWR SOURCE(S)/CONSUMPTION
 READOUT METHOD(S)
 AMP MOD-INT
 FREQ RANGE
 IMPEDANCE OUTPUT
 STANDING WAVE RATIO ISWR
 VOLTAGE OUTPUT

SIGNAL GENERATOR UHF-B
 13CM(5IN)X43CM(17IN)X48CM(19IN)
 20KG(43LBS)
 RACK PCUNT CAPABILITY
 50-60HZ S-PHASE 115/230V AC/240W
 METER VIA VERNIER DIAL
 800HZ TO 1200HZ INTERNAL
 800-2400MHZ
 50 OHMS
 2 TO 1
 10W

Q0100
 Q0110
 Q0120
 Q0130
 Q0140
 Q0160
 Q1600
 26600
 35200
 45600
 65600

QTS ETE PARAMETERS

MFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	MODE IC NO	QTS ETE PRICE
125	12678	SIGNAL GENERATOR UHF-B	2	A	107	8029	4250

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR	
WEIGHT IN KG/LBS	00110	30CM (12IN) X 50CM (20IN) X 50CM (20IN) D	
POWER SOURCE(S) / CONSUMPTION	00120	55KG (120LBS)	
READOUT METHOD(S)	00140	50-60HZ 8-PHASE 115-230VAC/125W	
AMP MOD INT	00160	METER VIA DIGITAL DIAL SELECT	
FREQ RANGE	01600	1000HZ INTERNAL	
TUNING RANGE, OUTPUT	26600	200-3000 MHZ	
PULSE MOD (PM) - EX	32200	50 OHMS	
VOLTAGE OUTPUT	36000	PULSE PWD	
AMP MOD EXT	85600	0-67V	
	01200	50 MAIZE	

QTS ETE PARAMETERS

MFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	MODE IC NO	QTS ETE PRICE
SLPD	23340	SIGNAL GENERATOR	2	A	107	8030	7400

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
AMP MOD-INT	00100	SIGNAL GENERATOR	
FREQ RANGE	01600	1KHZ SC WAVE	
PULSE MOD (PM)-EX	26600	275MHZ TC 2-75GHZ	
VOLTAGE OUTPUT	56000	PULSE MOD	
	85600	0-61V	

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C-14
TH

QTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
86409	2P480	SIGNAL GENERATOR VHF-A	2	A	106	8031	6675

ACCURACY (PCT)
CR AS STATED

PARAMETER NAME

PARAMETER CODE

PARAMETER

SIGNAL GENERATOR VHF-A
43CM171M1X14CM161M1H47CM181N1D
21KG146LRS1
48-400HZ S-PHASE 120/240VAC/13W
6-55 DEGREES
20KHZ TO 60KHZ
400-1000HZ INT AND EXT
-45PHZ TO 512MHZ
28PPM PER 90 DAYS
600 OHM
50 CHMS
2V AT 50 OHM LOAD

QTS ETE PARAMETERS

WFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
102C	04901	SIGNAL GENERATOR VHF-A	2	A	106	8032	4199

ACCURACY (PCT)
CR AS STATED

PARAMETER NAME

PARAMETER CODE

PARAMETER

SIGNAL GENERATOR VHF-A
43CM171M1X15CM161M1H48CM191N1D
14KG130LRS1
RACK MOUNT CAPABILITY
50-400HZ S-PHASE 120/240VAC/30W
-45PHZ TO 520MHZ
-05PPM PER HOUR
600 OHM
50 CHMS
1V ACROSS 50 OHM LOAD

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QTS ETE PARAMETERS

MFPS MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
3001	23338	SIGNAL GENERATOR VHF-A	2	A	106	8033	2600

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR VHF-A
WEIGHT IN KG/LBS	00110	30CM(12IN)WX13CM(5IN)HX35CM(14IN)D
ENCLOSURE (STYLE)	00120	13KG(29LBS)
PWR SOURCE(S)/CONSUMPTION	00130	RACK MOUNT CAPABILITY
HEADOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC/50W
PRIMARY INPUT CONNECTOR(S)	00160	METER W/6 DIGIT LEVEL INDICATOR SWITCH
AMP MOD-EX	00170	TYPE N
AMP MOD-INT	01200	0 TC 20KHZ
AMP MOD-INT, AMPL MOD FRE	01600	400HZ AND 1KHZ INTERNAL
FREQ RANGE	01620	0-90 PCT
IMPEDANCE, INPUT	34400	1MHZ TC 520PHZ
SPURIOUS FREQ	26600	600-CHMS
STANDING WAVE RATIO (SWR)	68000	55DB BELOW CARRIER
VOLTAGE, OUTPUT	69600	LT 1-2
	85600	1V AT 50 CHM LEAD

QTS ETE PARAMETERS

MFPS MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
6303	25778	SIGNAL GENERATOR VHF-A	2	A	106	8034	

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR VHF-A
WEIGHT IN KG/LBS	00110	38CM(15IN)HX24CM(10IN)HX38CM(15IN)D
PWR SOURCE(S)/CONSUMPTION	00120	14KG(30LBS)
HEADOUT METHOD(S)	00140	50-400, 400HZ S-PHASE 115/230VAC/50W
AMP MOD-EX	00160	METER
AMP MOD-INT	01200	20HZ TC 20KHZ
AMP MOD-INT, DISTORTION	01600	400-1000HZ
ATTENUATION, OUTPUT	01640	-127DB TC +13CP
FREQ RANGE	03600	10MHZ TO 400MHZ
IMPEDANCE, INPUT	26600	10K CHM
SPURIOUS FREQ	34400	50 DBMS
STANDING WAVE RATIO (SWR)	35200	35DB BELOW MOD LEVEL
VOLTAGE, OUTPUT	68000	LT 1.2
	69600	1V ACROSS 50 OHM LOAD
	85600	

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K-16
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QTS EYE PARAMETERS

MFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS EYE PRICE
750A	33013	SIGNAL GENERATOR VHF-A	2	A	106	8035	3500

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR VHF-A	
WEIGHT IN KG/LBS	00110	43CM(17IN)X18CM(7IN)X45CM(18IN)D	
ENCLOSURE (STYLE)	00120	12KG(26LBS)	
ENV SOURCE(S)/CONSUMPTION	00130	RACK MOUNT CAPABILITY	
AMP MOD-EX	00140	50-60,400MHZ S-PHASE 115/230VAC/75W	
AMP MOD-INT	01200	DC TC 20KHZ	
FREQ MOD	01600	4,000HZ AND 1KHZ	
FREQ RANGE	26020	6-300KHZ	
FREQ STABILITY,TEMPERATURE	27220	4.5MHZ TO 520MHZ	
IMPEDANCE, INPUT	34400	200PM 41KHZ W/21R WARMUP	
SPURIOUS FREQ	60030	600 CHPS	
STANDING WAVE RATIO (SWR)	69600	300DB BELOW CARRIER FREQ	
VOLTAGE, OUTPUT	85600	LT 1.2 1V ACROSS 50 OHM LOAD	

QTS EYE PARAMETERS

MFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS EYE PRICE
86400/004	28480	SIGNAL GENERATOR VHF-R	2	A	106	8036	7200

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR VHF-R	
WEIGHT IN KG/LBS	00110	43CM(17IN)X18CM(7IN)X47CM(18IN)D	
ENV SOURCE(S)/CONSUMPTION	00120	21KG(46LBS)	
TEMP OPER/NOM-OPERATING	00140	48-400MHZ S-PHASE 120/240VAC/13W	
VIA/ILS FAA 57DS	00260	0-55 DEGREES	
AMP MOD-EX	01200	AVIATION CPT ION 004	
AMP MOD-INT	01600	20KHZ TO 600KHZ	
FREQ MOD	26020	400-1000MHZ	
FREQ RANGE	28600	AP AND PP CR PULSE AND FM	
IMPEDANCE, INPUT	34400	45MHZ TC 512	
IMPEDANCE, OUTPUT	35200	600 CHM	
VOLTAGE, OUTPUT	85600	50 CHPS 2V AT 50 OHM LOAD	

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OTS ETE PARAMETERS

AFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
1020	04901	SIGNAL GENERATOR VHF-B	2	A	106	8037	5295

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR VHF-B	
WEIGHT IN KG/LBS	00110	43CM(17IN)X15CM(6IN)X48CM(19IN)D	
ENCLOSURE (STYLE)	00120	18KG(40LBS)	
PAR SOURCE(S)/CONSUMPTION	00130	9ACK MOUNT CAPABILITY	
VOR/ILS FAA STDS	00140	50-400HZ S-PHASE 120/240VAC/30W	
APP MCD-INT	00260	AVIONIC OPTICS 02.03.05.09.10	
FREQ RANGE	01600	400-1000MHZ	
FREQ STABILITY	26600	.45PHZ TO 520MHZ	
IMPEDANCE, INPLT	27200	INTERNAL PHASE LOCK	
PULSE MOD (PM)-FX	34400	600 CHW	
STANDING WAVE RATIO (SWR)	35200	OPTICN 02	
VOLTAGE, OUTPUT	56000	PF FROM OTHER SOURCE	
	69600	LT 1-5	
	65600	IV ACROSS 50 OHM LCAC	

OTS ETE PARAMETERS

AFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
6106	03782	SIGNAL GENERATOR VHF-B	2	A	106	8038	5250

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
ENCLOSURE (STYLE)	00100	SIGNAL GENERATOR VHF-B	
ENCLOSURE METHOD(S)	00130	MAIN FRAME W/PLUG IN MODULES	
VOR/ILS FAA STDS	00260	6 DIGIT COUNTER FEEDOUT VIA VERNIER DIAL	
FREQ RANGE	26600	AVIONIC OPTICS	
		61KHZ TO 512MHZ W/MODULE PLUG-IN 6202	

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1000

QTS ETE PARAMETERS

WFO'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME TO MC	QTS ETE PRICE
TF2008	09553	SIGNAL GENERATOR VHF-B	2	A	106	8039	

ACCURACY (PCT)
OF AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR VHF B
WEIGHT IN KG/LBS	00110	48CM(19IN)WX29CM(11IN)HX32CM(13IN)D
PWR SOURCE(S) / CONSUMPTION	00120	21KG(46LBS)
READOUT MET-HD(S)	00140	45-500HZ S-PHASE 125/240VAC/22W
TEMP OPER/NOV-OPERATING	00160	DIGITAL READOUT
AMP MOD-EXT	C0210	10-35C
AMP MOD-INT	G1230	20HZ TO 20KHZ EXT
FREQ RANGE	01600	300HZ TO 3KHZ
IMPEDANCE INPUT	26600	10KHZ TO 512MHZ W/11 RANGES
PULSE MOD. (PM)-EX	34400	600 CHMS
SPURIOUS FREQ RATIO (SWR)	56000	30HZ TO 125KHZ
VOLTAGE OUTPUT	68000	-40 TC -3008 RELCH
	69600	LY 1.2
	85600	200-200W ACROSS 50 OHM LOAD

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OTS EYE PARAMETERS

MEP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME TO AC	CTS EYE PRICE
7408	28480	DIFFERENTIAL VOLTMETER	2	8	121	8041	4500
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL					
WEIGHT IN KG/LBS	00110	42.5CM(16.75IN)X17.5CM(6.88IN)X46.4CM(18.25IN)D					
PWR SOURCE(S)/CONSUMPTION	00120	13KG(29LBS)					
READOUT METHOD(S)	00140	50-60-400-HZ S-PHASE 115/230VAC/124					
IMPEDANCE, INPUT	00160	METER READOUT VIA DIGITAL SELECT					
NULL MODE	34400	C-100MEG OHM INPUT					
VOLTAGE, DC	46800	100UV TO 100MV IN 4 RANGES					
	84400	1-1000VDC W/DIVIDER-1500VDC					

OTS EYE PARAMETERS

MEP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME TO AC	CTS EYE PRICE
887A3	89536	DIFFERENTIAL VOLTMETER	2	8	121	8042	1595
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL					
WEIGHT IN KG/LBS	00110	23CM(9.1IN)X18CM(7.1IN)X38CM(15.1IN)					
ENCLOSURE (STYLE)	00120	6KG(13.4LBS)					
PWR SOURCE(S)/CONSUMPTION	00130	BACK MOUNT CAPABILITY					
READOUT METHOD(S)	00140	50-400HZ 115/230VAC/4W W/BATTERY CAPABILITY					
TEMP OPER/NON-OPERATING	00160	METER					
FREQ RANGE	00210	0-50C					
IMPEDANCE, INPUT	26650	20HZ TO 5KHZ					
NULL MODE	34400	10MEG OHMS DC 1MEG OHM AC					
VOLTAGE, AC	46800	100UV THROUGH 100V IN 7 RANGES					
	84000	0 TO 1000VAC					

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QTS ETE PARAMETERS

MFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
1002	25778	DIFFERENTIAL VOLTMETER	2	B	121	8043	

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL	
WEIGHT IN KG/LBS	00110	30CM(12IN)X28CM(11IN)HX45CM(18IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	13KG(29LBS)	
READOUT METHOD(S)	00140	50+60+400 S-PHASE 115/230VAC/12	
IMPEDANCE INPUT	00160	METER READOUT W/DIGITAL SELECTOR	
NULL MODE	34400	100 μ EGHMS	
VOLTAGE, DC	46800	100UV	
	84400	+/-0-1100VDC AND 15000VDC W/DIVIDER	

QTS ETE PARAMETERS

MFR'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	QTS ETE PRICE
1412	25778	DIFFERENTIAL VOLTMETER	2	B	121	8043	

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL	
WEIGHT IN KG/LBS	00110	23CM(9IN)X18CM(7IN)X25CM(10IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	5KG(11LBS)	
READOUT METHOD(S)	00140	50-500HZ S-PHASE 115/230VAC	
TEND OPER/NON-OPERATING	00210	METER READOUT	
FREQ RANGE	26650	-40 TC +70C	
IMPEDANCE INPUT	34400	5HZ TC 100KHZ	
NULL MODE	46800	100 MEGOHM-DC, 1M Ω OHM-AC	
VOLTAGE, DC	84400	+001-TC 100V AC/DC	
		+/-0 TC 1000VDC	

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OTS ETE PARAMETERS

WFR'S MODEL NO	FSCN	NOMENCLATURE	TASK NC	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
1531A	24655	STRCBCSCOPE	2	E	065	8046	385

ACCURACY (PCT)
OR AS STATEDPARAMETER NAME
PARAMETER
CODE

STRCBCSCOPE
00100
DIMENSIONS IN CM/INS
00110
WEIGHT IN KG/LBS
00120
PWR SOURCE(S)/CONSUMPTION
00140
PRIMARY INPUT CONNECTOR(S)
00170
FLASH CHARACTERISTICS
24400
LIGHT INTENSITY
39600
SYNCHRONIZATION, INPUT
74000

STRCBCSCOPE
27CM(11IN)X17CM(7IN)X16CM(13IN)D
3.5KG(7.5LBS)
50-400HZ S-PHASE 115/230VAC/25W BATTERY OPTIONAL
PHONE JACKS FOR EXT TRIGGERING
110 TO 25,000 FLASHES PER MINUTE
06 TC +0 CANDELA
EXT TRIGGER +60 PULSE OR 2VOLT SINE WAVE

OTS ETE PARAMETERS

WFR'S MODEL NO	FSCN	NOMENCLATURE	TASK NC	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
932	15906	STRCBCSCOPE	2	E	065	8047	365

ACCURACY (PCT)
OR AS STATEDPARAMETER NAME
PARAMETER
CODE

STRCBCSCOPE
00100
DIMENSIONS IN CM/INS
00110
PWR SOURCE(S)/CONSUMPTION
00140
FLASH CHARACTERISTICS
24400
SYNCHRONIZATION, INPUT
74000

STRCBCSCOPE
15CM(6IN)X23CM(9IN)X20CM(18IN)D
50-60HZ S-PHASE 115/230VAC
0 TO 30,000 FLASHES PER MINUTE
EXT TRIGGERING

OTS ETE PARAMETERS

4FP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
165	05611	STROSCOPES	2	E	065	8048	360

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	00100	STROSCOPES	
PWR SOURCES/CONSUMPTION	00120	4KG(8LBS)	
READOUT METHODS	00140	60HZ, 5-PHASE 130VAC	
FLASH CHARACTERISTICS	00160	FREQ METER VIA RANGE SELECTOR SWITCH	
SYNCHRONIZATION INPUT	24400	115 TO 25,000 FLASHES PER MINUTE	
	74000	EXT TRIGGER AND SYNC SIGNALING	

OTS ETF PARAMETERS

4FP'S MODEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	TIME ID NO	OTS ETE PRICE
410	16902	STROSCOPES	2	E	065	8049	190

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
READOUT METHODS	00100	STROSCOPES/PHOTOGRAPHIC	
FLASH CHARACTERISTICS	00160	METER VIA PICK-UP HEAD	
	24400	0 TO 50,000 FLASHES PER MINUTE IN 4 RANGES	

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APPENDIX L

PARAMETER DATA OF U.S. ARMY TMDE

1. INTRODUCTION AND INSTRUCTIONS

This appendix presents parameter data of the U.S. Army TMDE applicable to the nine families considered in Appendixes A through I. The appendix is structured to permit CERCOM directly and completely to review the TMDE data for each technical parameter considered in the analysis.

2. SUPPORTING DATA

This section contains a reproduction of computer printout Number 10 (CP-10), U.S. Army TMDE Parameter Data", applicable to the nine families analyzed. CP-10 contains the data encoded in Subtask 2A, segregated by technical parameter, of the U.S. Army TMDE.

The following nonelectronic abbreviations are used throughout the computer listings:

- EXT - External
- GT - Greater Than
- NGT - Not Greater Than
- INT - Internal
- LT - Less Than
- NLT - Not Less than
- PCT - Percent
- W/ - With

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFO'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
AV/ARM-26C	100190	87793	GENERATOR SIGNAL	2	A	106		0109
PARAMETER NAME	PARAMETER CODE	PARAMETER	PARAMETER				ACCURACY (PCT) OR AS STATED	
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR						
WEIGHT IN KG/LBS	00110	36.20CM(14.25IN)X27.21CM(10.75IN)X27.31CM(10.75IN)						
PAP SOURCE(S)/CONSUMPTION	00120	17.25KG(38LBS)						
REACTUT METHOD(S)	00140	50-1000HZ S-PHASE 115VAC						
AMP WGT-INT	00160	DIAL METER						
FREQ RANGE	01000	400 6 1000HZ						
IMPEDANCE, OUTPUT	26600	3MHZ TC 405MHZ						
PULSE MOD (PMI-JY)	35200	50 CHMS						
VOLTAGE, OUTPUT	56400	50-5000VDC						
	85600	.10V TC 100.000V						
		IN 6 RANGES						
								+/- .5 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFO'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
AV/GP-15		42076	GENERATOR SIGNAL	2	A	050		0159
PARAMETER NAME	PARAMETER CODE	PARAMETER	PARAMETER				ACCURACY (PCT) OR AS STATED	
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	31.12CM(12.25IN)X23.50CM(9.25IN)X17.78CM(7IN)						
PAP SOURCE(S)/CONSUMPTION	00120	7.72KG(17LBS)						
REACTUT METHOD(S)	00140	50-1000HZ S-PHASE 115VAC/38W						
AMP WGT-INT	00160	METER						
PRIMARY INPUT CONNECTIONS	00170	CABLES & ADAPTERS						
ENVIRONMENTAL CONDITIONS	00200	WIL-T-21200 CLASS 2						
TEMP OPER/NON-OPERATING	00210	AS PER METHOD 502 PROCEDURE 162						
RELATIVE HUMIDITY	00220	AS PER METHOD 507 PROCEDURE 11 COVER REMOVED						
IMPEDANCE, OUTPUT	35200	50 CHMS						
OUTPUT SIGNALS	50000	CONTINUOUS CP PULSE						
PULSE WIDTH	56010	40+250+290USEC						
PULSE MOD, TRANS TIME	56430	18+55+80USEC						
PULSE RATE	56600	100MHZ TC 1.950MHZ						
VOLTAGE, OUTPUT	85600	150V TC IV						
		ON DIFF RANGES						
		ON DIFF RANGES						
		IN 6 RANGES						
		IN 3 RANGES						
								+/- .005PCT

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AV/GPM-15A	CA-748	82076	GENERATOR SIGNAL	2	4	050		0160
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					

DIMENSIONS IN CM/INS
 WEIGHT IN KG/LBS
 ENCLOSURE (STYLE)
 PWR SOURCE(S)/CONSUMPTION
 READOUT METHOD(S)
 IMPEDANCE, OUTPUT
 PULSE WIDTH
 PULSE MOD, TRANS TIME
 PULSE RATE
 SYNCHRONIZATION, MODE OF
 VOLTAGE, OUTPUT

SIGNAL GENERATOR PULSE
 31.12CM(12.25IN)X23.50CM(9.25IN)X17.78CM(7IN)
 7.12KG(15LBS)
 CASE MOUNTED
 50-1000HZ S-PHASE 115VAC/3HW
 METER
 -20C-455C/
 50 OHMS
 5 TC 100USEC
 0.05 TC 250USEC
 100KHZ TC 1.950MHZ
 SYNC SIGNALS OF 5 TO 75V WITHIN 50 TO 10,000HZ INT & EXT
 0 TO 200V

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AV/PPH-1	2121	28480	GENERATOR PULSE	2	A	050		0239
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CP AS STATED					

WEIGHT IN KG/LBS
 ENCLOSURE (STYLE)
 PWR SOURCE(S)/CONSUMPTION
 READOUT METHOD(S)
 IMPEDANCE, OUTPUT
 PULSE WIDTH
 PULSE MOD, TRANS TIME
 PULSE RATE
 VOLTAGE, OUTPUT

SIGNAL GENERATOR PULSE
 26.67CM(10.5IN)X36.83CM(14.5IN)X48.26CM(19IN)
 21.79KG(48LBS)
 PORTABLE
 50-60HZ S-PHASE 115/230VAC 325W
 METERS, TALS
 50 CHPS
 0 TO 100USEC
 70NANSEC TO 100USEC
 50 TC 5000 PULSE REPETITION
 0 TC 50V

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TYPE DESIGNATOR	MFG'S MODEL NR	FSCM	NOVENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSEC.	
							FAMILY CODE	TMDE ID NR
AV/PPM-1A	2124	28490	GENERATOR PULSE	2	A	050		3596

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CP AS STATED
IMPEDANCE, OUTPUT	Q0100	SIGNAL GENERATOR PULSE	
	Q0140	50-60HZ S-PHASE 115-230VAC	
	35200	50 OHMS	
OUTPUT SIGNALS	50000	SINUSOIDAL WAVE PULSE	
	56010	.07 TC 10USEC	
	74400	INT AND EXT	
PULSE WIDTH	85600	50V AT 50 OHM LOAD	
SYNCHRONIZATION, MODE OF			
VOLTA GE, OUTPUT			

TYPE DESIGNATOR	NPS MODEL NP	FSC#	NOMENCLATURE	TASK NR	GROUP LTP	FAMILY CODE	ASSC. FAMILY CODE	TIME ID NR
AN/PPM-10		13094	TEST OSCILLATOR	2	A	106		0240

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PGT) CR AS STATED
TEST OSCILLATOR	COL00	TEST OSCILLATOR	
WEIGHT IN K/LBS	WU110	29.94CWL11INW21.59C(18.5IN)PX12.70CM(SIN)D	
PWR SOURCE(S)/CONS/MBITION	WU120	5.45KG(12LPS)	
FREQ RANGE	COL43	50-1000 S-PHASE 105/125VAC/20W	
	26600	2 TC 400MHZ	+/-1.5 PCT
			IN 7 RANGES

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AV/UPM-15		96179	GENERATOR PULSE	2	A	050		0316
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CP AS STATED					
DIMENSIONS IN CH/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	50-17CM(19.75IN)X40-01CM(15.75IN)X58.42CM(23IN)D						
ENCLOSURE (STYLE)	00120	56.75KG(125LBS)						
PWR SOURCE(S)/CONSUMPTION	00130	PORTABLE						
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115VAC/300W						
IMPEDANCE, OUTPUT	00160	METER, DIAL						
PULSE WIDTH	35200	50 AND 70 CHWS						
PULSE MOD. TRANS TIME	56010	VARIABLE						
PULSE RATE	56430	500NANSEC TO 100USEC						
VOLTAGE, OUTPUT	56600	50 TO 10,000 PULSE REPETITION RATE						
	85600	2MV TO 200V	+/- .035PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NO	FSCM	NOMENCLATURE	TASK No	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/UPM-15A	I-1927	15196	GENERATOR PULSE	2	A	050		0317
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR PULSE						
ENCLOSURE (STYLE)	00110	50-17CM(19.75IN)X40-01CM(15.75IN)X58.42CM(23IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	56.75KG(125LBS)						
READOUT METHOD(S)	00130	PORTABLE						
IMPEDANCE, OUTPUT	00140	50-1000HZ S-PHASE 115VAC 300W						
PULSE MOD. TRANS TIME	35200	METER, DIAL						
PULSE RATE	56430	50 AND 75 CHWS						
SYNCHRONIZATION, MODE OF	56600	50NANSEC TO 100USEC						
VOLTAGE, OUTPUT	74400	50 TO 10,000 PULSE REPETITION						
	85600	TNT AND EXT SYNC						
		2MV TO 200V						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC-FAMILY CODE	TIME ID NR
AN/URM-109	31-D-141	79300	GENERATOR SIGNAL	2	A	104		0348
PARAMETER NAME								
PARAMETER CODE				PARAMETER				
00100				GENERATOR SIGNAL				
00130				RACK CABINET				
00140				55-65HZ S-PHASE 115VAC				
00160				DIAL				
01200				30HZ TC 15KHZ				
01600				30 TC 15KHZ				
26600				380 TC 430MHZ				
35200				50 OHMS				
85600				VOLTAGE OUTPUT				
				+31V				
PARAMETER NAME								
PARAMETER CODE				PARAMETER				
				ACCURACY (PCT) OR AS STATED				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/URM-149	5M-D-630000	82199	GENERATOR SIGNAL	2	A	107		0396
PARAMETER NAME				PARAMETER				
PARAMETER CODE				PARAMETER				
00100				GENERATOR SIGNAL				
00110				52.07CM(20-51)HXK66-68CM(26-25)HXK41-91CM(16-5)HX4				
00120				54-93KG(121)RS				
00140				50-60HZ S-PHASE 115/230VAC				
01200				250HZ TO 10KHZ				
03600				-70dB TO -127dB				
26020				0 TO 300KHZ INT & EXT FM				
26400				1.1-66-20-108KHZ				
26600				600MHZ TO 1.850GHZ				
35200				50 CHPS				
50000				CM & FM				
69600				1-5				
85600				100UV TO 100MV				
PARAMETER NAME				PARAMETER				
PARAMETER CODE				PARAMETER				
				ACCURACY (PCT) OR AS STATED				
				IN 1 RANGE				
				0/-5 PCT				
				0/-15 PCT				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	THDE ID NR
AN/URM-181	2024	28480	GENERATOR SIGNAL	2	A	106		0404

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL	
WEIGHT IN KG/LBS	00110	20.43CM(16.75IN)HX26.04CM(10.25IN)HX46.67CM(18.38IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	20.43KG(45LBS)	
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC/100W	
AMP MOD-INT	00160	DIAL, METER	
FREQ RANGE	01600	400-1000HZ	
IMPEDANCE, OUTPUT	01620	0-50 PCT MOD INT	
PULSE MOD (PM)-INT	26600	54 TC 216MHZ	
VOLTAGE, OUTPUT	35200	50 OHMS	
	85600	1000UV TO 200MV	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	THDE ID NR
AN/URM-26	294	21900	GENERATOR SIGNAL	2	A	106		0345

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL	
WEIGHT IN KG/LBS	00110	36.20CM(14.25IN)HX29.21CM(11.5IN)HX27.31CM(10.75IN)D	
ENCLOSURE (STYLE)	00120	17.25KG(38LBS)	
PWR SOURCE(S)/CONSUMPTION	00130	CABINET	
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115VAC	
AMP MOD-INT	00160	DIAL, METER	
FREQ RANGE	01600	400-6 1000HZ	
IMPEDANCE, OUTPUT	26600	3 TO 405MHZ	
PULSE MOD (PM)-INT	35200	50 OHMS	
VOLTAGE, OUTPUT	85600	50-5000PPS	
		100UV TO 100MV	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/UPM-26A	136015		GENERATOR SIGNAL	2	A	106		0946

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL	
WEIGHT IN KG/LBS	00110	36-20CM(14-25IN)X29-21CM(11-5IN)X27-31CM(10-75IN)D	
READOUT METHOD(S)	00120	17-25KG(38LBS)	
AMP MOD-INT	00140	50-1000HZ S-PHASE 115VAC	
AMP MOD-INT, AMPL MOD FRE	00160	DIAL-METER	
FREQ RANGE	01620	400-1000HZ	
IMPEDANCE, OUTPUT	26600	0-50 PCT MOD INT	
PULSE MOD (PM)-INT	35200	3 TC 405MHZ	
	56400	50 OHMS	
		50-5000PPS	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/UPM-26A	136015		GENERATOR SIGNAL	2	A	106		0947

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	00100	GENERATOR SIGNAL	
PWP SOURCE(S)/CONSUMPTION	00110	36-20CM(14-25IN)X26-67CM(10-5IN)X27-31CM(10-75IN)D	
READOUT METHOD(S)	00120	17-25KG(38LBS)	
AMP MOD-INT	00140	50-1000HZ S-PHASE 115VAC	
AMP MOD-INT, AMPL MOD FRE	00160	DIAL-METER	
FREQ RANGE	01620	400-1000HZ	
IMPEDANCE, OUTPUT	26600	0-50 PCT MOD INT	
PULSE MOD (PM)-INT	35200	4 TO 405MHZ	
VOLTAGE, OUTPUT	56400	50 OHMS	
	05600	50-5000PPS 2-40USEC PULSE WIDTH	
		100UV TO 100W	

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
AV/JRM-48		15196	GENERATOR SIGNAL	2	A	106		0355

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL	
WEIGHT IN KG/LBS	00110	30-48CPI121NWX30.48CM(121N)HX45.72(18IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	48-12KG(126LBS)	
AMP MOD-EX	00140	50-1000HZ S-PHASE 115/230VAC/75W	
AMP MOD-INT	01200	DIAL, METER	
FREQ RANGE	01600	100HZ TO 20KHZ	
IMPEDANCE, OUTPUT	26600	1KHZ	+/-5 PCT
VOLTAGE, OUTPUT	35200	19.7 TC 102MHZ	
	85600	10.5 250HVS	+/-25 PCT
		50UV TC 10MV	

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
AV/JRM-49		35225	GENERATOR SIGNAL	2	A	107		0356

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
PWR SOURCE(S)/CONSUMPTION	00100	GENERATOR SIGNAL	
READOUT METHOD(S)	00120	68-10KG(150LBS)	
FREQ RANGE	00140	50-1600HZ S-PHASE 115VAC/130W	
OUTPUT SIGNALS	00160	DIALS, METER	
VOLTAGE, OUTPUT	26600	394PHZ TC 1GHZ	+/-0.001PCT
	50000	PULSE, AN-MOD OR CM	
	85600	2000UV TO 200MV	

US ARMY GENERAL PURPOSE TNC PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMOE ID NR
AN/URM-49A	K00000149	35225	GENERATOR SIGNAL	2	A	107		9357
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	GENERATOR SIGNAL						
READOUT METHOD(S)	00110	47.31CM(13.66IN)X40.64CM(16IN)X70.80CM(27.88IN)D						
FREQ MOD-INT	00120	68.10KG(150LBS)						
FREQ RANGE	00160	DIALS, METER						
IMPEDANCE, OUTPUT	26400	40-4000PPS-MOD-100PCT 8AM-MOD-30PCT	+/- .001PCT					
OUTPUT SIGNALS	35200	394 TC 1000MHZ						
VOLTAGE, OUTPUT	50000	50 OHMS						
	85400	PM, AM & CW RF						
		200UV TO 200MV						

US ARMY GENERAL PURPOSE TNC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC.	TMOE ID NR
							FAMILY CODE	
AN/JRM-56	9008	01113	GENERATOR SIGNAL	2	A	107		0361
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	34.29CM(13.5IN)X44.91CM(16.5IN)X54.61CM(21.5IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	29.51KG(65LBS)						
AMP MOD-EX	00140	50-1000HZ S-PHASE 115/230VAC/200W						
ATTENUATION, OUTPUT	01200	5 PHZ						
FREQ MOD-INT	03600	3 TC -127CRM						
FREQ RANGE	26400	400 & 1000HZ AM, PULSE MOD-1000 PPS						
IMPEDANCE, OUTPUT	35200	450MHZ TO 1.230GHZ	IN 1 RANGE					
	85600	50 OHMS	+/-1 PCT					
		1UV TO 500MV						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCN	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
AN/URM-64-1		76809	GENERATOR SIGNAL	2	A	107		0363
PARAMETER NAME								
PARAMETER CODE			PARAMETER	ACCURACY (PCT) OR AS STATED				
00100			GENERATOR SIGNAL					
00110			35-56CM(141N)X32.39CM(12.75IN)X45.72CM(18IN)D					
00120			24-52KG(54LBS)					
00140			50-1000HZ S-PHASE 115VAC/150W					
00160			DIAL					
03600			0 TO -120DBM					
26600			900MHZ TO 2.1GHZ					
35200			50 CHMS					
56400			40-4000PPS					
85600			200UW					
			VOLTAGE, OUTPUT					
				IN 1 RANGE				
				+/- .001 PCT				

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCN	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
AN/URM-64-2		76809	GENERATOR SIGNAL	2	A	107		0364
PARAMETER NAME								
PARAMETER CODE			PARAMETER	ACCURACY (PCT) OR AS STATED				
00100			GENERATOR SIGNAL					
00110			35-56CM(141N)X32.39CM(12.75IN)X45.72CM(18IN)D					
00120			24-52KG(54LBS)					
00140			50-1000HZ S-PHASE 115VAC/150W					
00160			DIAL					
03600			0 TO -120DBM					
26600			900MHZ TO 2.1GHZ					
35200			50 CHMS					
56400			40-4000PPS					
85600			200UW					
			VOLTAGE, OUTPUT					
				IN 1 RANGE				
				+/- .001 PCT				

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AV/JEM-644-1	C-016-04001	03877	GENERATOR SIGNAL	2	A	107		0365
PARAMETER								
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	35.56CM(14IN)X32.39CM(12.75IN)X45.72CM(18IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	24.52KG(54LBS)						
ATTENUATION, OUTPUT	00140	50-1000HZ S-PHASE 115VAC/150W						
	03600	0 TO -120DBM						
	56400	40-4000PPS						
VOLTAGE, OUTPUT	85600	±16UV TO ±20V						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AV/JEM-644-2	C-0161-04001	03877	GENERATOR SIGNAL	2	A	107		0366
PARAMETER								
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	35.56CM(14IN)X32.39CM(12.75IN)X45.72CM(18IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	24.52KG(54LBS)						
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115VAC/150W						
ATTENUATION, OUTPUT	00160	DIAL						
FREQ RANGE	03600	0 TO -120DBM						
PULSE MOD (PWM)-INT	26600	900PHZ TO 2.1GHZ						
VOLTAGE, OUTPUT	56400	40 TC 4300PPS						
	85600	200UV TO 160MV						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC-FAMILY CODE	TMDE ID NR
AV/JRM-70		07450	GENERATOR SIGNAL	2	A	106		0367
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
HEIGHT IN KG/LBS	00110	46.36CM(19.25IN)X52.71CM(20.75IN)X10.80CM(4.25IN)						
PWR SOURCE(S)/CONSUMPTION	00120	23.13KG(51LBS)						
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115VAC/150W						
AMP MOD-EX	00160	DIAL						
AMP MOD-TNT	01200	250HZ TO 700HZ						
FREQ RANGE	01600	1600 & 20KHZ						
TAPEDANCE, OUTPUT	26020	0 TO 150KHZ PEV						
STANDING WAVE RATIO (SWR)	35200	50 TO 400MHZ						
VOLTAGE, OUTPUT	69600	50 OHMS	+/-1 PCT					
	85600	100UV TO 100MW						
		IN 3 RANGES						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
AV/JPM-90	402-D-7046	83777	T S CAPACITANCE INDUCTANCE RESISTANCE	2	B	024	008	0375
PARAMETER NAME				PARAMETER CODE		ACCURACY (PCT) OR AS STATED		
PWR SOURCE(S)/CONSUMPTION				00100		BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE		
TEMP OPER/NON-OPERATING				00110		27-5CM(11IN)X28.75CM(11.5IN)X22.5CM(10.5IN)D		
ALTITUDE OPER/NON-OPER				00140		50-1000HZ S-PHASE 115VAC		
CAPACITANCE RANGE				00210		1AM MIL-STD 810 METHOD 502		
INDUCTANCE				00230		1AM MIL-STD-810		
RESISTANCE MEASUREMENT				08400		.1 TC 1000UUF		
				36800		.1UH TC 1100H		
				59600		.1PILLION TO 11MEGOM		
						+/- .5 PCT		
						+/- .15 PCT		
						+/- .15 PCT		

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REVIEW AND ANALYSIS OF TECHNICAL CHARACTERISTICS FOR THE DEFINI--ETC(U)
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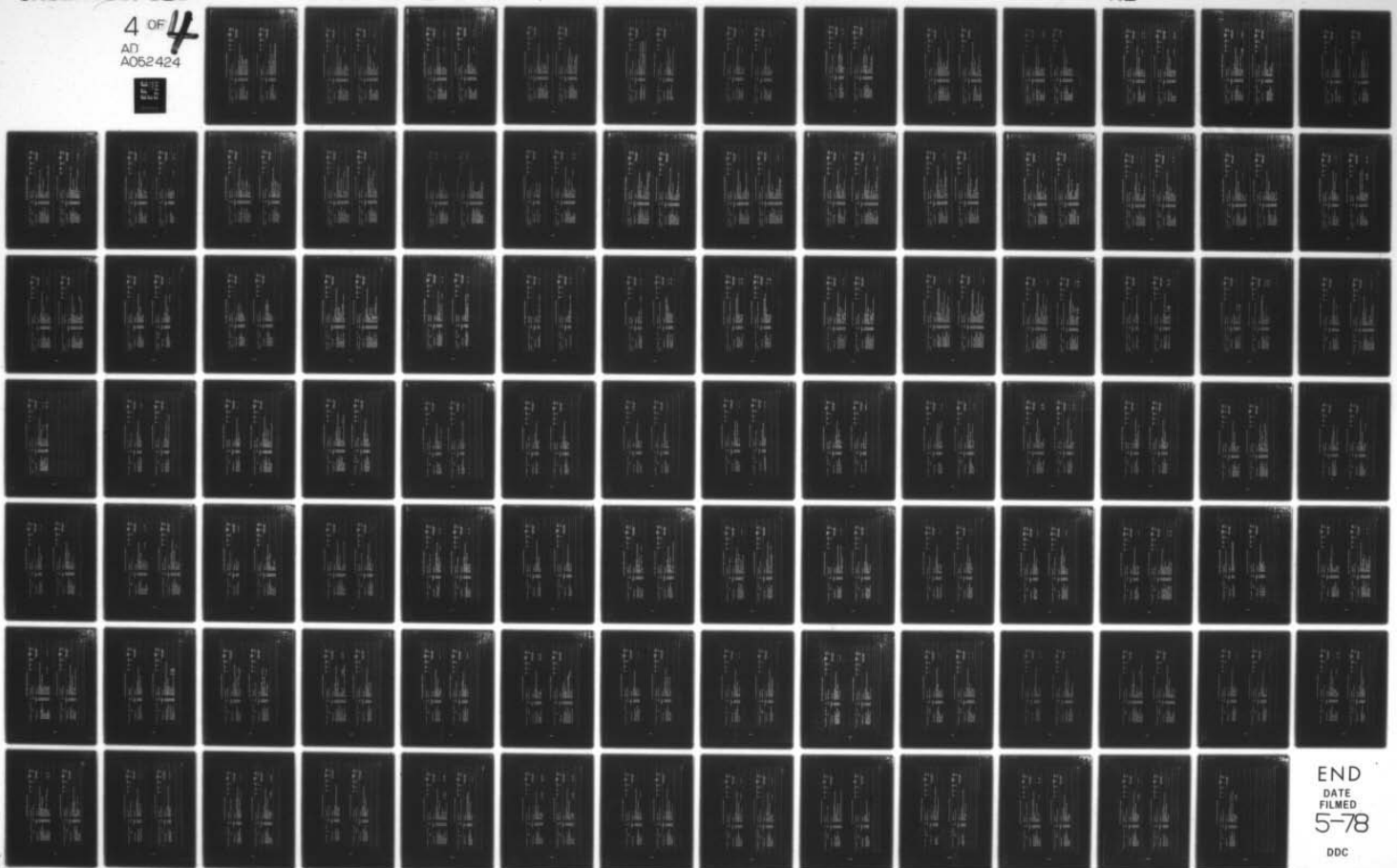
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US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AV/USM-108	100A	28569	GENERATOR TIME MARK	2	A	047		0440

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	25-40CM(101)X42-49CM(16-725IN)X34-93CM(13-75IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	13-73KG(30-25LBS)	
READOUT METHOD(S)	00140	50-60 HZ S-PHASE 115/230VAC/240W	
PRIMARY INPUT CONNECTOR(S)	00170	METER VIA PUSH BUTTON SWITCHES	
FREQUENCY OUTPUT RANGE	25400	CABLES VI: BANANA JACKS	
MARKER S	41600	50MHZ, 10MHZ, 5MHZ SINEWAVE	
OUTPUT SIGNALS	50000	100KHZ, 10KHZ, 1KHZ, 10HZ, 1PZ	
VOLTAGE OUTPUT	85600	SINEWAVE AND PULSE MARKERS	
		3V ACROSS 52 OHM LOAD	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AV/USM-108B		28569	GENERATOR TIME MARK	2	A	047		0441

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	25-40CM(101)X42-49CM(16-725IN)X34-93CM(13-75IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	13-73KG(30-25LBS)	
PRIMARY INPUT CONNECTOR(S)	00140	50-60 HZ S-PHASE 115/230VAC/ 240W	
MARKER S	41600	CABLES VIA BANANA JACKS	
VOLTAGE OUTPUT	85600	1.5, 10, 50, 100, 500USEC, 1, 10, 50, 100, 500MIL SEC, 1, 5SEC	
		1V (MARKER) 3V (SINEWAVE) 5V (TRIGGER PULSE AT 50 OHMS)	

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	ACRONYMLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AN/USM-213	8614A	28480	GENERATOR SIGNAL	2	A	107		0477
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	GENERATOR SIGNAL						
ENCLOSURE (STYLE)	00110	42.55CM(16.75IN)X13.97CM(5.51IN)X46.67CM(18.38IN)D						
PRM SOURCE(S)/CONSUMPTION	00120	19.98KG(44LBS)						
READOUT METHOD(S)	00130	RACK MOUNT CAPABILITY						
AMP MOD-EX	00140	50-60HZ 5-PHASE 115/230V 4C/125W						
ATTENUATION-OUTPUT	00160	DIGITAL-METER						
FREQ RANGE	01200	0 TO 1MHZ						
PULSE MOD (PM)-EX	03600	0 TO 127CM						
VOLTAGE-OUTPUT	26600	800MHZ TC 2.4GHZ						
	56000	50HZ TC 530VHZ DPS						
	56400	800 TC 1230HZ PULSE						
	85600	1000V TO 700MV						
		IN 1 RANGE	+/-5 PCT					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK	GROUP	FAMILY	ASSOC.	TMDE	
				NR					LTR
AN/USM-213A	8614B	28480	GENERATOR SIGNAL	2	A	107		0478	
PARAMETER NAME				PARAMETER CODE	PARAMETER				ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS				00100	GENERATOR SIGNAL				
PR SOURCE(S)/CONSUMPTION				00110	42.55CM(16.75IN)X13.97CM(5.51IN)X46.67CM(18.38IN)D				
PEADOUT METHOD(S)				00120	17.25KG(38LBS)				
AMP MOD-EX				00140	50-60HZ 5-PHASE 115/230V 4C/125W				
AMP MOD-INT				00160	DIGITAL-DIAL				
FREQ RANGE				01200	0 TO 1MHZ				
IMPEDANCE-OUTPUT				01600	930 TO 1050HZ SQ-WAVE				
PULSE MOD (PM)-EX				26600	800MHZ TO 2.4GHZ				IN 1 RANGE
VOLTAGE-OUTPUT				35200	50 CHWS				+/-5 PCT
				56000	PULSE MOD				
				85600	1000V TO 700W				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK Nº	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/USM-251	1209C	24655	GENERATOR SIGNAL	2	A	107		0758
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	20.32CM(8IN)HX19.37CM(7.63IN)HX24.13CM(9.5IN)D						
ENCLOSURE (STYLE)	00120	2.72KG(6LBS)						
PHR SOURCE(S)/CONSUMPTION	00130	BENCH MOUNTED CASE						
READOUT METHOD(S)	00140	60HZ 5-PHASE						
AMP MOD-INT	00160	DIALS						
FREQ RANGE	01600	400 6.1000HZ						
IMPEDANCE-OUTPUT	26600	250 TO 960MHZ						
VOLTAGE-OUTPUT	35200	50 OHMS						
	85600	0 TO 120Vdc						
			±1 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK	GROUP	FAMILY	ASSOC.
				NR			
AV/USM-252	1219C	24655	GENERATOR SIGNAL	2	A	106	0407
PARAMETER				ACCURACY (PCT) OR AS STATED			
PARAMETER NAME	PARAMETER CODE	PARAMETER					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL					
WEIGHT IN KG/LBS	00110	20.32CM(8IN)HX19.37CM(7.63IN)HX22.86CM(9IN)D					
READOUT METHOD(S)	00120	3.29KG(7.25LBS)					
AMP MOD-EX	00160	DIAL					
AMP MOD-INT	01200	400-1000HZ SQ-WAVE					
FREQ RANGE	01600	0 TO 5PHZ					
IMPEDANCE OUTPUT	26600	50 TO 250MHZ					
VOLTAGE OUTPUT	35200	15K CHPS					
	85600	2.4V					
							PN 1 RANGE
							0/-1 PCT

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATION	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
AN/USM-255	7921	72314	GENERATOR SIGNAL	2	A	050		0490
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	21.59CM(18.5IN)X29.21CM(11.5IN)X13.34CM(5.25IN)D						
ENCLOSURE (STYLE)	00120	4-54KG(10LBS)						
PWR SOURCE(S)/CONSUMPTION	00130	PORTABLE						
READOUT METHOD(S)	00140	60HZ 5-PHASE 115VAC						
IMPEDANCE, OUTPUT	00160	DIAL						
PULSE MOD, TRANS TIME	35200	50 AND 1000 CHMS						
PULSE RATE	56430	2MSEC TO 200NSEC						
SYNCHRONIZATION, MODE OF	56600	50HZ TC 5MHZ						
VOLTAGE, OUTPUT	74400	GATED						
	85600	10V AT 50 CHMS, 17V AT 1000 OHMS						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
AN/USM-256	7911	72314	GENERATOR SIGNAL	2	A	054	047	0491

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE	
WEIGHT IN KG/LBS	00110	20.32CM(PI)NWX27.94CM(11)INH12.70CM(5IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	3.41KG(7.5LBS)	
READOUT METHOD(S)	00140	50-400HZ 5-PHASE 105/125VAC/20W	
FREQUENCY OUTPUT RANGE	00160	DIAL	
IMPEDANCE, OUTPUT	25400	7HZ TC 10MHZ	
PULSE MOD, TRANS TIME	35200	50 CR 600 OHMS SELECTABLE	
PULSE RATE	56430	SQUARE WAVE AND TRIGGER PULSES	
SYNCHRONIZATION, MODE OF	56600	3V AT 50 OHMS 6.20V AT 600 OHMS	
VOLTAGE, OUTPUT	74400		

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WEIGHT MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AV/USM-263	300	11837	BRIDGE VOLTAGE RESISTANCE	2	8	008		0496
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	BRIDGE, RESISTANCE-VOLTAGE						
PWP SOURCE(S)/CONSUMPTION	00110	28.7CM (11.3IN) X 18.3CM (7.2IN) X 36.8CM (14.5IN) D						
PEAK/UT METHOD(S)	00120	R2KG (4LBS)						
TEMP OPER/NOM-OPERATING	00140	FIVE 1.5VOLT D CELLS AND TWO 8.4VOLT MERCURY BATTERIES						
	00141	BATTERY LIFE APPROXIMATELY 2000 PWR CONSUMPTION 30 MW						
	00160	ANALOG METHOD VIA SELECTION SWITCH						
	00210	±40F TO ±140F (±5C TO ±60C)/-35F TO +100F (-37C TO +70C)						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WEIGHT MODEL NR	FSCM	NOMENCLATURE	TASK No	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AV/USM-271	184	80309	GENERATOR ELEC MARKER	2	A	050		0500
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSF						
WEIGHT IN KG/LBS	00110	22.86CM(9.0IN)X37.47CM(14.75IN)X15.24CM(6IN)D						
READOUT METHOD(S)	00120	5.90KG(13LBS)						
PRIMARY INPUT CONNECTOR(S)	00140	50-400HZ S-PHASE 115/230VAC 40W						
MARKERS	00160	PUSHBUTTONS						
	00170	4NC						
	41600	16 TIME-MARKER SELECTION FROM 10NSEC TO 5SEC						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AV/USM-312	1302	24655	GENERATOR SIGNAL	2	A	107		0522
PARAMETER NAME			PARAMETER CODE	PARAMETER				
DIMENSIONS IN CM/INS			00100	GENERATOR SIGNAL				
			00110	19.49CM(7.68IN)X24.13CM(9.51IN)X20.32CM(8IN)D				
ENCLOSURE (STYLE)			00120	3.63KG(8LBS)				
READOUT METHOD(S)			00130	RFACH MOUNTED				
FREQ RANGE			00160	DIAL				
IMPEDANCE, OUTPUT			24650	220 TC 990MHZ				
VOLTAGE, OUTPUT			35200	50 OHMS				
			85600	0 TC 163MA				
				IN 1 RANGE				
				+/-1 PCT				

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MER'S MODEL NR	FSCM	NOMENCLATURE	TASK NP	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AV/USM-313	1211C	24655	GENERATOR SIGNAL	2	A	106		0523
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	19.05CM(7.50IN)X30.48CM(12IN)X20.32CM(8IN)D						
READOUT METHOD(S)	00120	5.22KG(11.5LBS)						
AMP MOD-FY	00160	DIAL						
FREQ RANGE	01200	EXT MOD CAPABILITY						
IMPEDANCE, OUTPUT	24650	500KHZ TO 50MHZ	IN 1 RANGE					
VOLTAGE, OUTPUT	35200	50 OHMS	+/-2 PCT					
	85600	0 TC 200MH						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCG FAMILY CODE	TMDE ID NR
AV/US4-357	130	80009	METER INDUCTANCE AND CAPACITANCE	2	B	011	008	0536
PARAMETER NAME				PARAMETER				
PARAMETER CODE				ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS				00100 METER INDUCTANCE AND CAPACITANCE				
WEIGHT IN KG/LBS				00110 17.5CMITINJW26.25(10.5IN)HX26.86.87CM(10.75IN)D				
PWP SOURCE(S)/CONSUMPTION				00120 4.09KG(9LBS)				
CAPACITANCE RANGE				00140 50-60HZ S-PHASE 115/230VAC/40W				
INDUCTANCE				0 TO 300UH				
				36800 0 TO 300UH				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	REF'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/USM-359	115	80009	PULSE GENERATOR	2	A	050		3617

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	22.85CM(9IN)X15.24CM(6IN)X45.40CM(17.875IN)	
PWR SOURCE(S)/CONSUMPTION	00120	6.825KC(13LBS)	
READOUT METHOD(S)	00140	60HZ S-PHASE 115/230VAC 115W	
TEMP OPER/NON-OPERATING	00160	SWITCH SELECTION	
ALTITUDE OPER/NON-OPER	00210	*20C-+30C/3C-+53C	
PULSE WIDTH	00230	LT 10.000FT/LT 50.000FT	
PULSE MOD	56010	50NSEC TO 50USEC	
PULSE RATE	56430	10NSEC TO 10USEC	
SYNCHRONIZATION, MODE OF	56600	0 TO 10KHZ PULSE REPETITION	
VOLTAGE, OUTPUT	74400	UNDELAYED PULSE, PAIRED PULSES, EXT TRIGGER, EXT GATE PULSE	
	85600	3 TO 10V	+/-3 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	REF'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/USM-374	111	80009	GENERATOR PULSE	2	A	050		0541

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR PULSE	
PWR SOURCE(S)/CONSUMPTION	00110	16.04CM(6.313IN)X23.74CM(11.313IN)X29.05CM(11.438IN)X	
PRIMARY INPUT CONNECTOR(S)	00120	4.09KG(9LBS)	
IMPEDANCE, OUTPUT	00140	50-800HZ S-PHASE 105/125 35W	
PULSE WIDTH	35200	50 CHMS	
PULSE RATE	56010	2NSEC TO 1.5USEC	
SYNCHRONIZATION, MODE OF	56400	10 TO 10KHZ PULSE REPETITION RATE	
VOLTAGE, OUTPUT	74400	INT AND EXT	
	85600	10V	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/USM-44		28480	GENERATOR SIGNAL	2	5	176		0421

ACCURACY (PCT)
CR - S STATED

PARAMETER
CODE

PARAMETER

00100	GENERATOR SIGNAL
00110	29.85CM(11.75IN)X35.48CM(13.97IN)X45.72CM(18.1IN)
00120	47.67KG(105LBS)
00140	50-400HZ 5-PHASE 115/230VAC/200W
00160	DIAL METER
01200	20HZ TC 20KHZ
01600	400 & 1000HZ
26650	10 TC 420MHZ
85600	100UV TO 500MV

+/- .01 PCT
+/- .01 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
AN/USM-44A	6080-E02	28480	GENERATOR SIGNAL	2	5	106		0422

ACCURACY (PCT)
CR - S STATED

PARAMETER
CODE

PARAMETER

00100	GENERATOR SIGNAL
00110	29.85CM(11.75IN)X35.48CM(13.97IN)X45.72CM(18.1IN)
00120	47.67KG(105LBS)
00140	50-400HZ 5-PHASE 115/230VAC/200W
00160	DIAL METER
01200	20HZ TC 20KHZ
01600	400 & 1000HZ
26650	10 TC 420MHZ
85600	.1MV TC .5V

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
AN/USM-44C	6040-E02	28480	GENERATOR SIGNAL	2	A	106		0423
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	GENERATOR SIGNAL						
PWP SOURCE(S)/CONSUMPTION	00110	29-85CM(11.75IN)X35-48CM(13.97IN)X45-72CM(18IN)D						
READOUT METHOD(S)	00120	47-67KG(105LBS)						
AMP MOD-INT	00140	50-400MHZ S-PHASE 115/230VAC/200W						
FREQ RANGE	00160	DIAL, METER						
IMPEDANCE, OUTPUT	26600	400 \pm 1000HZ	\pm 1-5 PCT					
VOLTAGE, OUTPUT	35200	10 TO 480MHZ						
	85600	50 CHWS	\pm 1 PCT					
		100UV TO 1V						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
ME-202/U	603	89536	VOLTMETER ELEC	2	B	121		0482
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER ELECTRONIC						
WEIGHT IN KG/LBS	00110	24-77CM(9.75IN)X40-64CM(16IN)X33-02CM(13IN)D						
	00120	13-62KG(30LBS)						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 117/234VAC/175W						
FREQ RANGE	00160	DIAL, METER						
NULL MODE	26600	5HZ TC 10KHZ						
VOLTAGE, AC	46800	.01 TC 10V						
VOLTAGE, DC	84000	0 TC 500VAC						
	84400	0 TO 500VDC						
		IN 8 RANGES	\pm 1-2 PCT					
			\pm 1-05 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
WE-2028/U	8038	89536	VOLTMETER ELEC	2	B	121		0683
PARAMETER NAME								
PARAMETER CODE			PARAMETER	ACCURACY (PCT) OR AS STATED				
00100			VOLTMETER ELECTRONIC					
00110			24-77CM(9.75IN)X40.64CM(16IN)X33.02CM(13IN)JD					
00120			17-25KG(38LBS)					
00140			50-60HZ 5-PHASE 117/234VAC/175W					
00160			DIALS, METER					
26650			5HZ TC 10KHZ					
34400			1MEGCHM AT AC, INFINITE AT NULL DC					
84000			0 TO 500VAC	IN 8 RANGES				
84400			0 TO 500VDC	IN 8 RANGES				
			VOLTAGE, DC	+/-2 PCT				
				+/-0.05 PCT				

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NP	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
SG-1039/U	3701A	28480	GENERATOR SIGNAL	2	A	106		0894
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
PWR SOURCE(S)/CONSUMPTION	00110	46-67CM(19.38IN)X17.46CM(6.88IN)X42.55CM(16.75IN)						
	00140	45-100HZ S-PHASE 115/230VAC/30W						
AMP MOD-EX	00160	CRT DIAL METER						
ATTENUATION, OUTPUT	01200	10HZ TC 10MHZ						
FREQ RANGE	C3600	99DB ATTENUATION IN 1 DB STEPS	IN 5 RANGES					
	26600	50 TC 90MHZ						

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NP	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
SG-106/U	105	80009	GENERATOR SQUARE WAVE	2	A	054	047	0838
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE						
WEIGHT IN KG/LBS	00110	41.91CM(16.5IN)X35.56CM(14IN)X25.4CM(10IN)						
PWR SOURCE(S)/CONSUMPTION	00120	15.89KG(35LBS)						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 125/250VAC/250W						
FREQUENCY OUTPUT RANGE	00160	METER						
VOLTAGE OUTPUT	25400	25HZ TC 1MHZ	IN 9 RANGES					
	85600	0 TO 100V ACROSS 600 OHM LOAD						

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
SG-1105/U	80133	28480	GENERATOR PULSE	2	A	050		2067

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	14-22CM(5.61IN)HX33-02CM(13IN)HX20-07CM(7.9IN)D	
ENCLOSURE (STYLE)	00120	4-09KG(9LBS)	
PWR SOURCE(S)/CONSUMPTION	00130	PCRTABLE	
PEADOUT METHOD(S)	00140	48-440HZ S-PHASE 120/240VAC 80W	
PRIMARY INPUT CONNECTOR(S)	00160	DIAL	
IMPEDANCE OUTPUT	00170	TEST LEADS	
PULSE RATE	35200	50 PPM	
SYNCHRONIZATION, MODE OF	56800	1 TC 50MHZ	
VOLTAGE OUTPUT	74400	EXT CONTROLLED, VARIABLE REP RATE, DELAY, WIDTH, DC OFFSET	
	85600	200MV TC 5V	

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
SG-1112(V)1/U	66409-004	28480	GENERATOR SIGNAL	2	A	106		2072

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR	
WEIGHT IN KG/LBS	00110	47-55CM(18.75IN)HX13.34CM(5.25IN)HX47.63CM(18.75IN)D	
ENCLOSURE (STYLE)	00120	20-43KG(45LBS)	
PWR SOURCE(S)/CONSUMPTION	00130	8FEM POWERED	
PEADOUT METHOD(S)	00140	48-440HZ S-PHASE 120/240VAC/175W	
VOR/ILS F4A STD	00160	DIGITAL METER	
ATTENUATION, OUTPUT	03600	MEETS FAA STD	
FREQ RANGE	26600	10DR STEP ATTENUATOR IN 1 DB STEPS	
IMPEDANCE, IMPLT	34400	500KHZ TO 512MHZ	
VOLTAGE OUTPUT	85600	2K OHMS	
		180V TC 1-3V	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFO'S MODEL NR	FSC#	NOMENCLATURE	TASK NA	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-12/11		15196	GENERATOR SIGNAL	2	A	106		0822
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	30-48CM(12IN)X45-72CM(18IN)X30-48CM(12IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	32-69KG(72LBS)						
READOUT METHOD(S)	00140	50-1000 S-PHASE 115/230VAC/75W						
AMP MOD-INT	00160	DIAL-METER						
FREQ RANGE	01600	1KHZ						
IMPEDANCE OUTPUT	26600	19-7 TC 102-4MHZ						
VOLTAGE OUTPUT	35200	10 & 25 PHMS						
	85600	1000V TO 1V						
		IN 5 RANGES						
			+/-0.5 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFO'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-13/ARH		16636	GENERATOR SIGNAL	2	A	106		0823

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
GENERATOR SIGNAL	00100	GENERATOR SIGNAL	
265VAC/135W	C0140	265VAC/135W	
DIAL-METER	00160	DIAL-METER	
WEETS FAA STDS	00260	WEETS FAA STDS	
90 & 150MHZ	01600	90 & 150MHZ	
10R TO 335MHZ	26600	10R TO 335MHZ	
IN 2 RANGES			.0005 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATION	REF'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-298/U	W-1	08775	GENERATOR SIGNAL	2	A	047		0839
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION						
WEIGHT IN KG/LBS	00110	36-83CM(14.51IN)X19.05CM(7.51IN)X44.45CM(17.51IN)						
ENCLOSURE (STYLE)	00120	9.53KG(21LBS)						
PWR SOURCE(S)/CONSUMPTION	00130	BENCH MOUNTED						
	00140	50-1000 HZ S-PHASE 115/230VAC						
	00160	DIAL						
TEMP OPER/NON-OPERATING	00210	+131F-(-14F/+160F-(-180F						
RELATIVE HUMIDITY	00220	97-100%						
ALTITUDE OPER/NON-OPER	00230	17610-000 FT ASL/LTEC50,000 FT ASL						
FREQUENCY OUTPUT RANGE	25400	400HZ TO 2KH7 IN 10 BANDS						
IMPEDANCE OUTPUT	35200	4000 OHMS						
OUTPUT SIGNALS	50000	SINE,SQUARE,TRIANGLE						
VOLTAGE OUTPUT	85600	30V P/P						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-298A/U	180	21764	GENERATOR SIGNAL	2	A	047		0840
PARAMETER				ACCURACY (PCT) OR AS STATED				
PARAMETER NAME	PARAMETER CODE	PARAMETER						
SIGNAL GENERATOR FUNCTION								
DIMENSIONS IN CM/INS	00100	36-83CM(14.51IN)X19.05CM(7.51IN)X44.45CM(17.51IN)						
WEIGHT IN KG/LBS	00110	9.53KG(21LBS)						
PWR SOURCE(S)/CONSUMPTION	00120	50-1000 HZ S-PHASE 115/230VAC						
READOUT METHOD(S)	00140	DIAL						
FREQUENCY OUTPUT RANGE	00160	4008 TC 1200HZ IN 5 BANDS						
IMPEDANCE OUTPUT	25400	40 OHMS						
OUTPUT SIGNALS	35200	SINE,SQUARE,TRIANGULAR						
	50000							

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
SG-299/U	802-296	28569	GENERATOR SIGNAL	2	A	054	047	0841

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE	
WEIGHT IN KG/LBS	00110	35.24CM(13.88IN)X24.77CM(9.75IN)X35.24CM(13.88IN)D	
ENCLOSURE (STYLE)	00120	13.62KG(30LBS)	
PWR SOURCE(S)/CONSUMPTION	00130	BENCH MOUNT	
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115/230VAC/210W	
ATTENUATION OUTPUT RANGE	03600	DIAL	
FREQUENCY OUTPUT RANGE	25400	60DB ATTENUATOR VARIABLE IN 20DB STEPS IN 6 RANGES	
IMPEDANCE OUTPUT	35200	1HZ TC 1MHZ	
OUTPUT SIGNALS	50000	75 & 600 OHMS	
VOLTAGE OUTPUT	85600	SQUARE WAVE	
VOLTAGE OUTPUT	85600	9 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS	
VOLTAGE OUTPUT	85600	0 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS	

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
SG-299/U	502-333	28569	GENERATOR SIGNAL	2	A	054	047	0842

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE	
WEIGHT IN KG/LBS	00110	35.24CM(13.88IN)X24.77CM(9.75IN)X35.24CM(13.88IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	13.62KG(30LBS)	
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115/230VAC/210W	
ATTENUATION OUTPUT RANGE	03600	DIAL	
FREQUENCY OUTPUT RANGE	25400	60DB ATTENUATOR VARIABLE IN 20DB STEPS IN 6 RANGES	
IMPEDANCE OUTPUT	35200	1HZ TC 1MHZ	
OUTPUT SIGNALS	50000	75 AND 600 OHMS	
OUTPUT SIGNALS	50000	SQUARE WAVE	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME TO AK
SG-309/GRC-47	608C	28480	GENERATOR SIGNAL	2	1	100	0843	0843
PARAMETER NAME								
PARAMETER CODE			PARAMETER					
00100			GENERATOR SIGNAL					
00110			48.26CM(19.77IN)X35.30CM(14.13IN)X33.34CM(13.12IN)					
00120			28.15CM(11.08IN)X28.15CM(11.08IN)X28.15CM(11.08IN)					
00130			28CM MOUNTED					
00140			50-1000HZ S-PHASE 115/230VAC					
00160			TOTAL					
26600			10MHZ TO 400MHZ					
35200			50 CHMS					
85600			10V TO 1V					

IN 5 PAGES

+/-1 FT

ACCURACY (FCT)
AS SHOWN

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME TO AK
SG-321/U	5533	83563	GENERATOR SIGNAL	2	1	047	0344	0344
PARAMETER NAME								
PARAMETER CODE			PARAMETER					
00100			SIGNAL GENERATOR FUNCTION					
00110			35.625CM(14.250IN)X30.625CM(12.500IN)X31.45CM(12.100IN)					
00130			CABINET MOUNTED					
00140			50-400HZ S-PHASE 115/230VAC					
00210			WIL-G-55447A					
00220			WIL-STD-810					
00230			WIL-STD-810					
00240			WIL-STD-810					
00250			WIL-STD-810					
25400			.008 TC 1200HZ					
35200			4000 CHMS					
50200			SINE, TRIANGLE, SQUARE WAVES					
85600			30V P/P ACROSS 4000 CHM LOAD					

+/-

ACCURACY (FCT)
AS SHOWN

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
SG-3219/U		24635	GENERATOR SIGNAL	2	A	047		0846

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED
FREQUENCY OUTPUT RANGE	00100	SIGNAL GENERATOR FUNCTION	
	25400	-008 TC 1.2MH	
	35200	40 CHMS	
OUTPUT SIGNALS	50000	SINE, TRIANGLE, SQUARE WAVE	

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
SG-3401/U	612A	28490	GENERATOR SIGNAL	2	A	107		0849

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL	
WEIGHT IN KG/LBS	00110	41.91CM(16.5IN)HX54.61CM(21.5IN)HX34.29CM(13.5IN)D	
ENCLOSURE (STYLE)	00120	25.42KG(56LBS)	
PUR SOURCE(S)/CONSUMPTION	00130	CABINET	
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115/230VAC/215W	
AMP MOD-EX	01200	DIALS, METER	
FREQ MOD-INT	26400	20H7 TC 5MHZ	
FREQ RANGE	26600	400 & 1000HZ AN 0-90 PCT-MOD	+/-1 PCT
IMPEDANCE, OUTPUT	35200	450MHZ TC 1.250GHZ	+/-1 PCT
VOLTAGE, OUTPUT	85600	1000V TO 500MV	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-343/UPM-15A		15196	GENERATOR PULSE	2	A	050		0950
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	27.94CM(11.1IN)W/35.56CM(14.1IN)H/48.26CM(19.1IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	22.70KG(50LBS)						
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115VAC/300W						
PRIMARY INPUT CONNECTOR(S)	00160	DIAL						
IMPEDANCE, OUTPUT	00170	CABLES						
PULSE WIDTH	35200	2500-250, OR 50-MATCHED						
PULSE MOD, TRANS TIME	56010	1 TO 2 USEC						
PULSE RATE	56430	500NSEC-TO 100USEC						
SYNCHRONIZATION, MODE OF	56600	50HZ TO 10KHZ PULSE REPETITION IN 3 RANGES						
VOLTAGE, OUTPUT	74400	INT CR EXT SYNC W/SINGLE OR DOUBLE PULSE						
	85600	2MV TO 200V						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-366/U	570A	80138	GENERATOR PULSE	2	A	050		0951

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	38.74CM(15.25IN)H/49.53CM(19.5IN)H/26.45CM(10.625IN)D	
ENCLOSURE (STYLE)	00120	13.62KG(30LBS)	
PWR SOURCE(S)/CONSUMPTION	00130	PORTABLE	
READOUT METHOD(S)	00140	60HZ S-PHASE 105/125VAC/110W	
IMPEDANCE, OUTPUT	00160	METER	
OUTPUT SIGNALS	35200	50 CHWS	
PULSE MOD, TRANS TIME	50000	CM S PULSE	
PULSE RATE	56430	2000SEC TO 200USEC	
VOLTAGE, OUTPUT	56600	12 TC 80MHZ W/400-4000 PPS RATE IN 5 BANDS	
	85600	0 TC 200MV	

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
SG-36A1/U	50703	80138	GENERATOR PULSE	2	A	050		0852
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
SIGNAL GENERATOR PULSE	00100							
49.53CM119.51N1X20.32CM181N1X34.29CM113.51N1D	00110							
PORTABLE	00130							
ENCLOSURE (STYLE)	00140	60HZ S-PHASE 105/125VAC 15W						
PMF SOURCE(S)/CONSUMPTION	00160	METER						
READOUT METHOD(S)	35200	50 OHMS						
IMPEDANCE, OUTPUT	50000	CM & PULSED						
OUTPUT SIGNALS	56010	20 TC 20USEC						
PULSE WIDTH	56430	100NSEC TO 100USEC						
PULSE RATE	56600	10 TC 120MHZ 4/50 TO 5KHZ PULSE REPETITION						
SYNCHRONIZATION, MODE OF	74400	INT CR EXT SYNC						
VOLTAGE, OUTPUT	85600	3 TO 200MV						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC.
							TMDE ID NR
SG-475/AP5-94	100720	06344	OSCILLATOR PULSE DELAY	2	A	050	0855
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
SIGNAL GENERATOR PULSE	00100						
DIMENSIONS IN CM/IN/5	00110	38.10CM(15.1IN)X48.26CM(19.1IN)X13.34CM(5.25IN)ID					
WEIGHT IN KG/LBS	00120	8.17KG(18LBS)					
ENCLOSURE (STYLE)	00130	RACK MOUNT					
PMR SOURCE(S)/CONSUMPTION	00140	60HZ S-PHASE 115VAC 25W					
READOUT METHOD(S)	00160	METER-DIALS					
PRIMARY INPUT CONNECTOR(S)	00170	8NC					
IMPEDANCE, OUTPUT	35200	100 OHMS					
OUTPUT SIGNALS	50000	RECTANGULAR PULSE					
PULSE WIDTH	56010	.5 TC 50USEC					
PULSE MOD, TRANS TIME	56430	100USEC TO 10NSEC					
PULSE RATE	56600	10 TC 10KHZ PULSE REPETITION RATE					
SYNCHRONIZATION, MODE OF	74400	INT CR EXT SYNC DELAY CR NORMAL					
VOLTAGE, OUTPUT	85600	0 TO 10V					
			*+- .05 PCT				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	NER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-63B/UPM-10	15802	36004	GENERATOR PULSE	2	A	050		0027
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR PULSE						
PHR SOURCE(S)/CONSUMPTION	00110	43-94CM(17-31IN)X21-34CM(8-4IN)X8-89CM(3-5IN)ID						
READOUT METHOD(S)	00120	5-45KG(12LBS)						
OUTPUT SIGNALS	00140	50-1600HZ S-PHASE 115VAC						
PULSE WIDTH	00160	DIALS						
PULSE RATE	50000	SQ WAVES AND PULSE						
SYNCHRONIZATION, MODE OF	56010	+55.1-2.35USEC	+/-1 PCT					
	56600	200 TC 2500HZ PULSE REPETITION						
	74400	INT SYNC						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	NER'S MODEL NR	FSC #	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-69/PPM	212A	28480	GENERATOR PULSE	2	A	050		0016
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	52-71CM(20-75IN)X32-39CM(12-75IN)X8-04CM(4-16IN)ID						
ENCLOSURE (STYLE)	00120	25-42KG(56LBS)						
PWR SOURCE(S)/CONSUMPTION	00130	PORTABLE CR BACK						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115-230VAC 325W						
PRIMARY INPUT CONNECTOR(S)	00160	DIAL						
ATTENUATION,OUTPUT	00170	BAC AAF M-TYPE						
IMPEDANCE,OUTPUT	03600	0-5008 IN 10 DB STEPS						
PULSE WIDTH	35200	50 OHMS						
PULSE MOD, TRANS TIME	56010	+07 TO 10USEC	+/-10 PCT					
PULSE RATE	56430	+02USEC						
SYNCHRONIZATION, MODE OF	56600	50 TO 5KHZ PULSE REPETITION						
VOLTAGE,OUTPUT	74400	INT OR EXT SYNC W/DELAY UPTO 100USEC + OR - POLARITY						
	85600	0 TO 50V						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
SG-69A/PPM-1	2121	28480	GENERATOR PULSE	2	A	050		0830
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED					
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR PULSE						
ENCLOSURE (STYLE)	00110	52-71CM(20.75IN)WX32.39CM(12.75IN)HX36.20CM(14.25IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	25.42KG(56LBS)						
READOUT METHOD(S)	00130	PORTABLE						
ATTENUATION, OUTPUT	00140	50-60HZ S-PHASE 115/230VAC/380W						
PULSE WIDTH	00160	DIAL						
PULSE RATE	03600	0-500R IN 10 PR STEPS	+/-1 PCT					
SYNCHRONIZATION, MODE OF	56010	0 TO 100USEC						
VOLTAGE, OUTPUT	56600	2 TO 5KHZ PULSE REPETITION RATE IN 2 RANGES						
	85600	INT SYNC W/DELAY OUTPUT UPTO100USEC						
		0 TO 50V						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
SG-69B/PPM-1	2121	28480	GENERATOR PULSE	2	A	050		0831

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	52-71CM(20.75IN)WX32.39CM(12.75IN)HX36.04CM(14.188IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	25.42KG(56LBS)	
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115-230VAC 325W	
IMPEDANCE, OUTPUT	00160	DIAL	
PULSE WIDTH	35200	50 OHMS	
PULSE MOD, TRANS TIME	56010	.07 TC 10USEC	
PULSE RATE	56430	700NSEC TO 10USEC	
SYNCHRONIZATION, MODE OF	56600	50 TC 5KHZ PULSE REPETITION	
VOLTAGE-OUTPUT	74400	INT CR EXT SYNC W/+ OR - POLARITY	
	85600	-50 TC 50V	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-747	3300A	28480	GENERATOR SIGNAL	2	A	047		0072

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	27-94CPL111NWX13-34CM(5.25)NPHR42-55CM(16.75)ND	
ENCLOSURE (STYLE)	00120	9.08RG(20LBS)	
PMR SOURCE(S)/CONSUMPTION	00130	BENCH MOUNTED	
READOUT METHOD(S)	00140	50-400HZ 5-PHASE 115/230VAC	
FREQUENCY OUTPUT RANGE	00160	DIAL	
IMPEDANCE OUTPUT	25400	.01HZ TO 100PHZ	IN 10 RANGES
OUTPUT SIGNALS	35200	600 CHMS	
VOLTAGE OUTPUT	50000	SINE, SQUARE, TRIANGLE	
	85600	35V P/P	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-769/U	111	23338	GENERATOR SIGNAL	2	A	047		0075

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	13.34CM(5.25)NWX19.05CM(7.5IN)X19.69CM(7.75IN)D	
ENCLOSURE (STYLE)	00120	3.18KG(7LBS)	
PMR SOURCE(S)/CONSUMPTION	00130	BENCH MOUNTED	
READOUT METHOD(S)	00140	50-400 HZ 5-PHASE 115/230VAC 10W	
ENVIRONMENTAL CONDITIONS	00200	DIAL	
FREQUENCY OUTPUT RANGE	25400	25C-5C	
OUTPUT SIGNALS	35200	.015HZ TO 1MHZ	
VOLTAGE OUTPUT	50000	50 AND 600 OHMS	
	85600	SINE, TRIANGLE, SQUARE WAVE	
		5V P/P ACROSS 50 OHM LOAD	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-772/G	105 MOD1498	80009	GENERATOR SIGNAL	2	A	054	047	0877
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE						
WEIGHT IN KG/LBS	00110	26-67CM(10.51IN)HX35.56CM(14.1IN)HX48.26CM(19.1IN)H						
ENCLOSURE (STYLE)	00120	6-36KG(14.1LBS)						
PWR SOURCE(S)/CONSUMPTION	00130	RACK MOUNTED						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 105/125VAC/250W						
FREQUENCY OUTPUT RANGE	00160	DIALS						
IMPEDANCE, OUTPUT	25400	25HZ TC 1MHZ	IN 9 RANGES					
OUTPUT SIGNALS	35200	50 OHMS						
VOLTAGE, OUTPUT	85600	SQUARE WAVE						
		0-15V ACROSS 50 OHM LOAD						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NP	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
SG-867/U	470A-500	98329	GENERATOR SIGNAL	2	A	106		0680
PARAMETER NAME				PARAMETER		ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS				GENERATOR SIGNAL				
WEIGHT IN KG/LBS				17.15CM(6.75IN)HX46.99CM(18.5IN)HX25.40CM(10.1IN)D				
PRR SOURCE(S)/CONSUMPTION				16-80KG(37LBS)				
READOUT METHOD(S)				50-60HZ S-PHASE 105/125VAC				
AMP MOD-EX				DIAL METER				
AMP MOD-TNT				60HZ TC 100KHZ SC-WAVE				
FREQ RANGE				1KHZ SC WAVE				
IMPEDANCE, OUTPUT				200 TC 500MHZ				
VOLTAGE, OUTPUT				50 OHMS				
				50MV TC 59V		+/-1 PCT		
85600								

US ARMY GENERAL PURPOSE T4CE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIDE ID NR
55-3697U	608F	28480	VHF SIGNAL GENERATOR	2	A	106		0883

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	VHF SIGNAL GENERATOR	
WEIGHT IN KG/LBS	00110	33.66CM(13.25IN)HX41.59CM(16.38IN)HX53.34CM(21IN)D	
PAR SOURCE(S)/CONSUMPTION	00120	28.15KG(62LBS)	
REACTUT METHOD(S)	00140	50-400HZ 3-PHASE 115/230VAC/220W	
AMP MOD-FX	00160	DIAL, SCALE, METER	
AMP MOD-INT	01200	20HZ TC 20KHZ	
FREQ RANGE	01600	400 & 1KHZ	
IMPEDANCE, OUTPUT	26600	10 TC 455MHZ	IN 5 RANGES
STANDING WAVE RATIO (SWR)	35200	50 OHMS	
VOLTAGE, OUTPUT	69600	1.2	
	85600	-10V TC .5V	

US ARMY GENERAL PURPOSE T4CE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIDE ID NR
50-97/ERC	614A	28480	GENERATOR SIGNAL	2	A	107		0837

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	00100	GENERATOR SIGNAL	
PAR SOURCE(S)/CONSUMPTION	00110	34.29CM(13.51IN)HX33.66CM(13.55IN)HX43.18CM(17IN)D	
REACTUT METHOD(S)	00120	26.79KG(59LBS)	
ATTENUATION, OUTPUT	00140	50-400HZ 3-PHASE 115/230VAC/160W	
FREQ RANGE	00160	DIALS, METER	
IMPEDANCE, OUTPUT	03600	0 TO -127DB	
PULSE MOD (PM)-INT	26600	800MHZ TC 2.1GHZ	
STANDING WAVE RATIO (SWR)	35200	50 OHMS	
VOLTAGE, OUTPUT	69600	40 TC 4000PPS	
	85600	1-4	
		100UV TO 158MV	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK	GROUP	FAMILY	ASSOC.	TIME
				NR	LTR	CODE	CODE	
SG-975/U	32008	28480	GENERATOR SIGNAL	2	A	106		0885
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	16.51CM(6.50IN)HX33.34CM(13.13IN)X19.49CM(7.68IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	7-72KS(117LBS)						
FREQ RANGE	00140	50-400HZ S-PHASE 115/230VAC/30W						
IMPEDANCE, OUTPUT	26600	10 TO 500MHZ	IN 6 RANGES					
VOLTAGE, OUTPUT	35200	50 OHMS	+/-2 PCT					
	85600	0 TO 3-16V						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
TS-2843/U	88318	89536	VOLTMETER	2	R	121		1210
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER						
WEIGHT IN KG/LBS	00110	21.59CM(8.51IN)WX17.78CM(7IN)HX37.47CM(14.75IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	6-36KG(14LBS)						
READOUT METHOD(S)	00140	50-440-HZ S-PHASE 115/230VAC/6W W/BATTERY CAPABILITY						
FREQ RANGE	00160	METER, DIGITAL						
IMPEDANCE, INPUT	26600	20HZ TC 5KHZ						
VOLTAGE, AC	34400	INFINITE AT NULL	+/-3 PCT					
VOLTAGE, DC	84400	0 TO 1000VDC	+/-3 PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
TS-419/U	H-12		GENERATOR SIGNAL	2	A	107		1012
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	34.29CM(13.5IN)HX43.82CM(17.25IN)HX34.61CM(13.63IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	22.7KG(50LBS)						
READOUT METHOD(S)	00140	50-1600HZ S-PHASE 115VAC/150W						
ATTENUATION-OUTPUT	00160	DIAL-METER						
FREQ RANGE	03600	+10 TC -146CBM						
IMPEDANCE-OUTPUT	26600	900MHZ TC 2.1GHZ						
PULSE MOD (PM)-INT	35200	50 CHMS	+/-1 PCT					
VOLTAGE-OUTPUT	56400	40 TC 4000PPS						
	85600	40 TC 70V						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMCE ID NR
TS-497/UUR			GENERATOR SIGNAL	2	A	106		1031
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	29.21CM(11.5IN)HX27.94CM(11IN)HX50.80CM(20IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	25.88KG(57LBS)						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 117VAC/65W						
AMP MOD-EX	01200	DIAL-METER						
AMP MOD-INT	01600	60HZ TC 100KHZ						
AMP MOD-INT, AMPL MOD FPE	01620	400-1000HZ						
FREQ RANGE	26600	0-30 PCT MOD INT						
IMPEDANCE-OUTPUT	35200	2 TO 400MHZ						
PULSE MOD (PM)-INT	56400	53-5 CHMS						
VOLTAGE-OUTPUT	85600	60HZ TC 100KHZ PFS 1-40USEC PULSE WIDTH						
		100UV TO 100MV						
		IN 6 RANGES						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
TS-497A/URR			GENERATOR SIGNAL	2	A	106		1032

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/LNS	00100	GENERATOR SIGNAL	
WEIGHT IN KG/LBS	00110	29.21CM(11.51IN)X27.94CM(11.1IN)X50.80CM(20IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	25.88KG(57LBS)	
READOUT METHOD(S)	00140	50-60HZ 5-PHASE 117VAC/65W	
FREQ RANGE	26600	DIAL METER 2 TO 400MHZ	
VOLTAGE OUTPUT	85600	100UV TO 100MV	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
TS-497B/URR	SM-8-334504	04423	GENERATOR SIGNAL	2	A	106		1034

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	80100	GENERATOR SIGNAL	
PWP SOURCE(S)/CONSUMPTION	00110	29.21CM(11.51IN)X27.94CM(11.1IN)X50.80(20IN)D	
READOUT METHOD(S)	00120	25.88KG(57LBS)	
FREQ RANGE	00140	50-60HZ 5-PHASE 117VAC/65W	
	26600	DIAL METER 2 TO 400MHZ	
		IN 6 RANGES	+/-5 PCT

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
TS-583/U	2101	28480	GENERATOR SIGNAL	2	A	054	047	3636

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR SQUARE WAVE	
ATTENUATION, OUTPUT	00120	15-9KG(35LBS)	
FREQUENCY OUTPUT RANGE	03600	7008 ATTENUATOR IN 50P STEPS	
IMPEDANCE, OUTPUT	25400	20HZ TC 20KHZ	
OUTPUT SIGNALS	35200	500 CR 1000 CHMS	
VOLTAGE, OUTPUT	50000	SQUARE WAVE	
	85600	50V P/P	

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
TS-583A/U	E-136204	35225	GENERATOR SIGNAL	2	A	054	047	3637

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE	
PHR SOURCE(S)/CONSUMPTION	00110	36CM(115IN)X16-8CM(7IN)X21-6(9IN)ID	
FREQUENCY OUTPUT RANGE	00140	50-60HZ S-PHASE 115VAC/100W	
IMPEDANCE, OUTPUT	25400	20HZ TC 10KHZ	
OUTPUT SIGNALS	35200	1000 CHMS	
VOLTAGE, OUTPUT	50000	SQUARE WAVE	
	85600	60V P/P	

US ARMY GENERAL PURPOSE TREE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THOE ID NR
TS-592/UPM-15	382663F		GENERATOR PULSE	2	A	050		1058
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
ENCLOSURE (STYLE)	00100	SIGNAL GENERATOR PULSE						
PWR SOURCE(S)/CONSUMPTION	00110	37.15CM(14.625IN)HX30.16CM(11.875IN)HX51.60CM(20.313IN)D						
IMPEDANCE, OUTPUT	00130	PORTABLE						
PULSE WIDTH	00140	50-1000HZ S-PHASE 115VAC						
PULSE MOD, TRANS TIME	35200	2500-250150 CHPS-MATCHED						
PULSE RATE	56010	05 TC 100USEC						
SYNCHRONIZATION, MODE OF	56430	300NSEC TO 20SEC						
	56600	50 TC 10KHZ PULSE REPETITION						
	74400	INT CR EXT SYNC W/1 CR PULSES * OR - POLARITY						
VOLTAGE, OUTPUT	85600	20-200V						

US ARMY GENERAL PURPOSE TREE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC.	THOE ID NR
							FAMILY CODE	
TS-592A/UPM-15	451218	88585	GENERATOR PULSE	2	A	050		1059
PARAMETER NAME			PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED			
DIMENSIONS IN CM/INS			00100	SIGNAL GENERATOR PULSE				
WEIGHT IN KG/LBS			00110	37.15CM(14.625IN)HX30.16CM(11.875IN)HX51.60CM(20.313IN)D				
ENCLOSURE (STYLE)			00120	36.4KG(80LBS)				
PWR SOURCE(S)/CONSUMPTION			00130	PORTABLE				
READOUT METHOD(S)			00140	50-1000HZ S-PHASE 115VAC				
IMPEDANCE:OUTPUT			00160	DIAL				
PULSE WIDTH			35200	2500-250150 CHPS-MATCHED)				
PULSE MOD, TRANS TIME			56010	.5 TC 100USEC				
PULSE RATE			56430	2 TO 300SEC				
SYNCHRONIZATION, MODE OF			56600	50 TC 10KHZ PULSE REPETITION				
VOLTAGE: OUTPUT			74400	INT CR EXT SYNC W/SINGLE OR DOUBLE PULSES				
			85600	20 TC 200V				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
TS-805/U	631-8	24655	STROBSCOPE	2	E	065		1104
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	STROBSCOPE						
WEIGHT IN KG/LBS	00110	16.51CM(16.51IN)X23.50CM(9.25IN)X24.70CM(9.75IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	4-31KG(9-5LBS)						
READOUT METHOD(S)	00140	60HZ S-PHASE 105/125VAC/35W						
FLASH CHARACTERISTICS	00160	DIAL						
	24400	600 TO 14,400 FLASHES PER MIN IN 2 RANGES	+/-1 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NP	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
TS-805A/U	631-8L	24655	STROBSCOPE	2	E	065		1109
PARAMETER NAME				PARAMETER CODE		PARAMETER		
DIMENSIONS IN CM/INS				00100		STROBSCOPE		
PMR SOURCE(S)/CONSUMPTION				00110		19.30CM(17.61IN)X22.86CM(9IN)X25.40CM(10IN)D		
FLASH CHARACTERISTICS				00140		60HZ S-PHASE 105/125VAC		
				24400		60 TO 14400 FLASHES PER MINUTE IN 2 RANGES		
						+/-1 PCT		
						ACCURACY (PCT) OR AS STATED		

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
TS-8058/U	510AL	83490	STRCSSCOPE	2	E	065		1110
PARAMETER NAME								
		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
READOUT METHOD(S)		00100	STRCSSCOPE					
FLASH CHARACTERISTICS		00160	DIAL					
		24400	60 TO 15,000 FLASHES PER MINUTE IN 2 RANGES	+/-1 PCT				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
TS-8058/U	451-AL	00708	STRCSSCOPE	2	E	065		1111
PARAMETER NAME								
		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
		00100	STRCSSCOPE					
		00140	60HZ S-PHASE 115VAC					
FLASH CHARACTERISTICS		24400	60 TO 15,000 FLASHES PER MINUTE IN 2 RANGES	+/-1 PCT				

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TIME ID NR
TS-8050/U	510-B	83490	STROBESCOPE	2	E	065		1112
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
PWR SOURCE(S)/CONSUMPTION	00100	STROBESCOPE						
READOUT METHOD(S)	00140	60HZ S-PHASE 115VAC						
FLASH CHARACTERISTICS	00160	DIAL						
	24400	600 TO 15,000 FLASHES PER	+/-1 PCT					
		IN 2 RANGES						

US ARMY GENERAL PURPOSE TMCF PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NP	FSCM	NOMENCLATURE	TASK Nr	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	THIDE ID NR
ZN-11/J	712	13259	BRIDGE CAPACITANCE INDUCTANCE RESIST	2	B	011	008	1276
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE						
PWR SOURCE(S)/CONSUMPTION	00110	22.5CM(9.14)X16.25CM(6.5IN)HX23.75CM(9.5IN)D						
	00140	50-1000HZ S-PHASE 115VAC/40W						
INTERNAL SIGNAL SOURCE	08400	100UF TO .000UF	+/-5 PCT					
INDUCTANCE	25410	1KHZ INTERNAL CSC	+/-1 PCT					
RESISTANCE MEASUREMENT	36800	.01MH TO 100H	+/-2 PCT					
	59600	10MH TO 10MEGOM						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
ZM-11A/U			BRIDGE CAPACITANCE INDUCTANCE RESIST	2	9	011	008	1277
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE						
READOUT METHOD(S)	00110	21.87CM(18.75IN)/15.5CM(6.2IN)/15.5CM(9.75IN)						
CAPACITANCE RANGE	00160	METER VIA DIAL						
DC TEST VOLTAGE	08400	10PF TC 1000UF	+/-2 PCT					
INDUCTANCE	16000	0-500VDC						
RESISTANCE MEASUREMENT	36800	100UH TO 100H	+/-1 PCT					
	59600	1 TO 10MEG OHMS	+/-5 PCT					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
Z4-11B/U		12019	BRIDGE CAPACITANCE INDUCTANCE RESIST	2	9	011	008	1278
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE						
PWR SOURCE(S)/CONSUMPTION	00110	21.87CM(18.75IN)HX26.37CM(19.75IN)HX15.5CM(6.2IN)D						
CAPACITANCE RANGE	00140	50-1000HZ S-PHASE 115VAC/						
DC TEST VOLTAGE	08400	10PF TC 1000UF	+/-5 PCT					
INDUCTANCE	16000	0-500VDC	PCT					
RESISTANCE MEASUREMENT	36800	100OH TO 100H	+/-2 PCT					
	59600	1 TO 10MEG OHMS						

US ARMY GENERAL PURPOSE THREE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
Z4-3/U		54294	T S CAPACITOR	2	8	011	008	1271
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	ANALYZER,CAPACITCR						
WEIGHT IN KG/LBS	00110	21-91CM(18-631N1HX35-24CM(13.88IN)HX26-35CM(10.38TN))						
PWR SOURCE(S)/CONSUMPTION	00120	15-78KG(34-75LBS)						
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115/230VAC						
TEMP OPER/MON-OPERATING	00160	METER						
CAPACITANCE RANGE	C3210	-4 TO 125F /-65 TC 160F						
DC TEST VOLTAGE	08400	50UF TO 10000UF	±1-5 PCT					
RESISTANCE MEASUREMENT	16000	0 TO 600VDC LEAKAGE						
	59600	1 TO 10,000 MEGOHMS INSULATION RESISTANCE						

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US ARMY GENERAL PURPOSE THREE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
Z4-34/U		77569	ANALYZER CAPACITOR	2	8	011	008	1272

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	ANALYZER,CAPACITOR	
WEIGHT IN KG/LBS	00110	23-50CM(9-25IN)HX34-29CM(13-5IN)HX26-34CM(13-5IN)	
PWR SOURCE(S)/CONSUMPTION	00120	12-37KG(27-25LBS)	
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115/230VAC	
TEMP OPER/MON-OPERATING	00160	METER	
CAPACITANCE RANGE	00210	-4 TO 125F /-65 TO 160F	
DC TEST VOLTAGE	08400	5PF TO 10000UF	
RESISTANCE MEASUREMENT	16000	0-TO 600VDC LEAKAGE	
	59600	1-1 TO 10,000MEGCHMS INSULATION RESISTANCE	

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
ZN-4/U	5300	31922	BRIDGE RESISTANCE	2	B	008		1273
PARAMETER NAME								
PARAMETER CODE			PARAMETER			ACCURACY (PCT) OR AS STATED		
00100			BRIDGE, RESISTANCE					
00110			DIMENSIONS IN CM/INS					
00110			18-42CM(7.25IN) X 13.56CM(5.34IN) X 22.23CM(8.75IN) D					
00120			DIMENSIONS IN CM/INS					
00120			23.18CM(9.125IN) X 25.72CM(10.125IN) X 29.85CM(11.75IN) D					
00120			WEIGHT IN KG/LBS					
00120			7.04KG(15.50LBS)					
00140			WEIGHT IN KG/LBS					
00140			3.63KG(8LBS)					
00140			PMR SOURCE(S)/CONSUMPTION					
00140			40-60HZ S-PHASE 210/250VAC/25W					
00160			READOUT METHOD(S)					
00160			3 EACH BA-30 BATTERY					
00160			READOUT METHOD(S)					
00160			GALVANOMETER VIA RECSTAT AND MULTIPLIER SWITCHES					
00200			ENVIRONMENTAL CONDITIONS					
00200			IAW MIL-T-945					
00240			VIBRATION LIMIT (MAXIMUM)					
00240			SHALL BE TESTED IAW MIL-T-945					
00250			SHOCK, PULSE LEVEL					
00250			SHOCK AND BOUNCE TEST RQC SEE MIL-B-3067B					
59600			RESISTANCE MEASUREMENT					
59600			+/-2% PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
ZN-4A/U	301SL	66150	BRIDGE RESISTANCE	2	B	008		1274
PARAMETER NAME								
PARAMETER CODE			PARAMETER			ACCURACY (PCT) OR AS STATED		
00100			BRIDGE, RESISTANCE					
00110			DIMENSIONS IN CM/INS					
00110			18-42CM(7.25IN) X 13.56CM(5.34IN) X 22.23CM(8.75IN) D					
00120			WEIGHT IN KG/LBS					
00120			3.63KG(8LBS)					
00140			WEIGHT IN KG/LBS					
00140			3.63KG(8LBS)					
00140			PMR SOURCE(S)/CONSUMPTION					
00140			W/3-1.5V BATTERIES					
00160			READOUT METHOD(S)					
00160			3 EACH BA-30 BATTERY					
00160			READOUT METHOD(S)					
00160			GALVANOMETER VIA RECSTAT AND MULTIPLIER SWITCHES					
00200			ENVIRONMENTAL CONDITIONS					
00200			IAW MIL-T-945					
00240			VIBRATION LIMIT (MAXIMUM)					
00240			SHALL BE TESTED IAW MIL-T-945					
00250			SHOCK, PULSE LEVEL					
00250			SHOCK AND BOUNCE TEST RQC SEE MIL-B-3067B					
59600			RESISTANCE MEASUREMENT					
59600			0 TO 1.011 MEGOHMS					
59600			+/-15 PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NP	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
7N-48/U		66150	BRIDGE RESISTANCE	2	B	008		1275
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE RESISTANCE						
DIMENSIONS IN CM/INS	00110	18.42CM(7.25IN) X 12.56CM(5.34IN) X 22.23CM(8.75IN) D						
WEIGHT IN KG/LBS	00120	3.63KG(8LBS)						
PWR SOURCE(S)/CONSUMPTION	00140	VOLTAGE-DC W/ 3-1.5V BATTERIES						
PWR SOURCE(S)/CONSUMPTION	00140	3 EACH HA-30 BATTERY						
READOUT METHOD(S)	00160	GALVANOMETER VIA RHEOSTAT AND MULTIPLE SWITCHES						
ENVIRONMENTAL CONDITIONS	00200	IAW MIL-T-945						
VIBRATION LIMIT (MAXIMUM)	00240	SHALL BE TESTED IAW MIL-T-945						
SHOCK, PULSE LEVEL	00250	SHOCK AND BOUNCE TEST ROC SEE MIL-B-3067B						
RESISTANCE MEASUREMENT	59600	9-1.011 MEGOHMS	+/- .15 PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NP	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
ZM-61/U	2503	28480	BRIDGE CAPACITANCE INDUCTANCE RESIST	2	B	008		1284
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE						
WEIGHT IN KG/LBS	00110	34.29CM(13.50IN)X50.96CM(20.063IN)X26.04CM(10.25IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	18-16KG(40LBS)						
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115/230VAC/60W						
CAPACITANCE RANGE	00160	METER VIA DIAL						
INTERVAL SIGNAL SOURCE	00400	0 TO 20 PF	+/-1 PCT					
INDUCTANCE	25410	.5 TC 250MHZ						
RESISTANCE MEASUREMENT	36800	.001UH TO 100UH	+/-1 PCT					
	59600	15 TO 100KOHMS	+/-1 PCT					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	WEE'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMDE ID NR
ZM-68/U	DS9-5C-48	88869	BRIDGE IMPEDANCE	2	B	008		1285
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE IMPEDANCE						
WEIGHT IN KG/LBS	00110	13.34CM(15.25IN)X33.10CM(13.15IN)X48.26CM(19.15IN)						
	00120	11.35KG(25LBS)						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	WFA'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMDE ID NR
ZM-69	1650-9701	24655	BRIDGE IMPEDANCE	2	B	008		3630
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	RFIDGE,IMPEDANCE						
WEIGHT IN KG/LBS	00110	33.02CM(13.15IN)X17.15CM(6.75IN)X31.12CM(12.25IN)ID						
PWR SOURCE(S)/CONSUMPTION	00120	7.72KG(17LBS)						
	00140	5VDC BATTERY						
INDUCTANCE	08400	1PF TC 1000UF	IN 7 RANGES					
RESISTANCE MEASUREMENT	36800	1UH TC 1000H	IN 7 RANGES					
	59600	10MH TC 10MEGOMH	IN 7 RANGES					
			+/-1 PCT					
			+/-1 PCT					
			+/-1 PCT					

US ARMY GENERAL PURPOSE THREE PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
ZM-69A	1650-9702	24655	BRIDGE IMPEDANCE	2	B	008		3631
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
READOUT METHOD(S)	00100	BRIDGE IMPEDANCE						
CAPACITANCE RANGE	00140	6VDC BATTERY						
INTERNAL SIGNAL SOURCE	08400	METER						
INDUCTANCE	25410	1PF TO 1100UF	IN 7 RANGES					
RESISTANCE MEASUREMENT	36800	1KHZ	IN 7 RANGES					
	59600	1UH TO 1100H	IN 7 RANGES					
		.001 TC 1.1MFGHMS	IN 7 RANGES					

US ARMY GENERAL PURPOSE THREE PARAMETERS

TYPE DESIGNATOR	AFR'S MODEL NR	FSCM	NOMENCLATURE	TASK Nr	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
ZM-70/J	2507E	11837	BRIDGE CAPACITANCE INDUCTANCE RESIST	2	B	008		1286
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE						
PMR SOURCE(S)/CONSUMPTION	00110	21.34CM(8.4IN)X17.53CM(6.9IN)X26.92CM(10.6IN)D						
READOUT METHOD(S)	00140	4-1.5VCLT BATTERIES						
CAPACITANCE RANGE	08400	METER						
INTERNAL SIGNAL SOURCE	25410	0 TO 1200UF	+/- .2 PCT					
INDUCTANCE	36800	INTERNAL GENERATOR AC AND DC	+/- .1 PCT					
RESISTANCE MEASUREMENT	59600	0 TO 1200H 0 TO 12MEGCHMS	+/- .2 PCT					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATION	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMDE ID NR
	BC-376M	94486	GENERATOR SIGNAL	2	A	106		2349
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	22.86CM(9.01IN)X19.69CM(7.75IN)X33.02CM(13.0IN)						
ENCLOSURE (STYLE)	00120	9.65KG(21.25LBS)						
PWP SOURCE(S)/CONSUMPTION	00130	PORTABLE						
VDR/ILS FAA STDS	00140	1.5 & 90V BATTERIES	BA-35 & BA-36					
FREQ RANGE	00260	MEETS FAA STDS						
	26600	75MHZ						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	878	06692	GENERATOR PULSE	2	A	050		3251
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	49.53CM(19.51IN)X33.02CM(13.1IN)X22.23CM(8.75IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	25.42KG(56LBS)						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115VAC 375W						
IMPEDANCE, OUTPUT	00160	DIAL						
OUTPUT SIGNALS	35200	50 CHWS						
PULSE WIDTH	50000	SQ WAVE						
PULSE MOD. TRANS TIME	56010	.05 TO 10.000/SEC						
PULSE RATE	56600	0 TO 10/SEC						
SYNCHRONIZATION, MODE OF	74400	0 TO 2/WHZ PULSE REPETITION						
VOLTAGE, OUTPUT	85600	INT OR EXT SYNC W/+ OR - POLARITY						
		50V						
			+/ - 3 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
24-71/U	42603	29480	BRIDGE IMPEDANCE	2	0	006		1287
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	BRIDGE IMPEDANCE						
PWR SOURCE(S)/CONSUMPTION	00110	19.69CM(7.75IN)X16.51CM(6.5IN)HX27.94CM(11.1IN)D						
READOUT METHOD(S)	00120	4.99KG(11.1LBS)						
CAPACITANCE RANGE	00140	50-60HZ S-PHASE 115/230VAC/74						
INTERNAL SIGNAL SOURCE	08400	METER						
EXTERNAL SIGNAL SOURCE	25410	1PF TC 1000UF	+/-1 PCT					
INDUCTANCE	25420	1KHZ IN						
RESISTANCE MEASUREMENT	36800	20-20KHZ EXT						
	59600	10U TO 1030H	+/-1 PCT					
		10PILLICHR TC 10MEGOMHS	+/-1 PCT					
		IN 7 RANGES						
		IN 7 RANGES						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	DP170	28569	RRIDGE RESISTANCE DIGITAL	2	B	008		1980
PARAMETER NAME			PARAMETER CODE	PARAMETER				
			00100	BRIDGE RESISTANCE DIGITAL				
DIMENSIONS IN CM/INS			00110	20.96CM(8.25IN)X7.62CM(3IN)X25.40CM(10IN)D				
WEIGHT IN KG/LBS			00120	1.59KG(3.5LBS)				
PWR SOURCE(S)/CONSUMPTION			00140	60HZ 5-PHASE 115VAC				
RESISTANCE MEASUREMENT			59600	0-9.99OHMS				
				+/- .002PCT				
				ACCURACY (PCT) OR AS STATED				

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	E1002	07239	RRIDGE IMPEDANCE	2	B	008		3267
PARAMETER NAME			PARAMETER CODE	PARAMETER				
			00100	BRIDGE IMPEDANCE				
DIMENSIONS IN CM/INS			00110	30.48CM(12IN)X17.78CM(7IN)X48.26CM(19IN)D				
WEIGHT IN KG/LBS			00120	6.81KG(15LBS)				
READOUT METHOD(S)			00160	GALVANDMETER				
RESISTANCE MEASUREMENT			59600	25.5 OHM PLATINUM RESIST THERMOMETER FOR TEMP READING				
				ACCURACY (PCT) OR AS STATED				

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	E3067	07239	POTENTIOMETER	2	B	008		1982

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	POTENTIOMETER	
WEIGHT IN KG/LBS	00110	21.27CM(8.375IN)X20.32CM(8IN)X41.91CM(16.5IN)D	N/D
PWR SOURCE(S)/CONSUMPTION	00120	9.08KG(20LBS)	
READOUT METHOD(S)	00140	INTERNAL BATTERY POWERED	
	00160	METER VIA DIAL	

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	F511	07421	GENERATOR SIGNAL	2	A	047		1982

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION	
WEIGHT IN KG/LBS	00110	21.59CM(8.5IN)X13.34CM(5.25IN)X31.12CM(12.25IN)D	
PWR SOURCE(S)/CONSUMPTION	00120	5.90KG(13LBS)	
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC 35W	
DC OFFSET	00160	ANALOG DIAL	
FREQUENCY OUTPUT RANGE	15600	ADJUSTABLE FROM -10 TO +10V	
IMPEDANCE OUTPUT	25400	0 TO 11MHZ	
OUTPUT SIGNALS	35200	50 OHMS	
	50000	SINE, SQUARE, TRIANGLE AND RAMP WAVE FORMS	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR	ACCURACY (PCT) OR AS STATED
	F55A	07421	GENERATOR FUNCTION	2	A	047		1812	
PARAMETER NAME	PARAMETER CODE	PARAMETER							
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION							
WEIGHT IN KG/LBS	00110	42-55CM(16.75IN)X13.18CM(5.188IN)X30.80CM(12.125IN)D							
PWR SOURCE(S)/CONSUMPTION	00120	8.63KG(19LBS)							
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115-230VAC 50W							
PRIMARY INPUT CONNECTOR(S)	00160	DIAL SWITCHES							
FREQUENCY OUTPUT RANGE	00170	BNC CABLE							
OUTPUT SIGNALS	25400	0 TO 11MHZ							
VOLTAGE OUTPUT	50000	SINE,SQUARE,TRIANGLE WAVE(W/RAMP AND PULSE TO 5MHZ)							
	85600	15V P/P							

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US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NO	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
	1G-115	03782	GENERATOR SIGNAL	2	A	047		1908
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION						
WEIGHT IN KG/LBS	00110	15-24CM(6IN)X18.73CM(7.375IN)X10.16CM(4IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	2.72KG(6LBS)						
FREQUENCY OUTPUT RANGE	00140	60 HZ S-PHASE 115VAC						
IMPEDANCE OUTPUT	35200	14KHZ TO 1GHZ						
		50 OHMS						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFQ'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMCE ID NR
K7006		28480	GENERATOR SIGNAL P I	2	A	050		3273

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE
WEIGHT IN KG/LBS	00110	17.78CM(7IN)X48.26CM(19IN)X15.24CM(6IN)D
ENCLOSURE (STYLE)	00120	6.81KG(15LBS)
READOUT METHOD(S)	00130	PLUG-IN MODULE
PULSE RATE	00160	DIGITAL
	56600	18 TC 26.50GHZ PART OF AN/USM-234

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFQ'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMCE ID NR
L7036		77327	GENERATOR SIGNAL	2	A	107		3275

ACCURACY (PCT)
OR AS STATED

PARAMETER NAME	PARAMETER CODE	PARAMETER
ENCLOSURE (STYLE)	00100	GENERATOR SIGNAL
PMR SOURCE(S)/CONSUMPTION	00130	PLUG-IN UNIT
FREQ RANGE	00140	PMR PROVIDED BY MAIN FRAME MODEL 816-510(PRO)
	26600	1 TC 26GHZ

+/-2 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	M-3	56289	T S CAPACITOR COMPACT	2	8	011	008	1300

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
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DIMENSIONS IN CM/INS
 WEIGHT IN KG/LBS

00100 TEST SET-CAPACITOR COMPACT
 00110 15.24CM(6IN)HX20.97CM(5.5IN)WX20.32CM(8IN)D
 00120 2.27KG(5LBS)
 08400 100PF TO 2000JF

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	MP-1	04596	PULSER MINI	2	4	050		1912

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
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WEIGHT IN KG/LBS
 PWR SOURCE(S)/CONSUMPTION
 READOUT METHOD(S)
 PULSE RATE

00100 SIGNAL GENERATOR PULSE
 00110 15.24CM(6IN)HX20.96CM(5.25IN)WX20.32CM(8IN)D
 00120 3.18KG(7LBS)
 00140 7.5VDC BATTERY
 00160 METER-DIAL
 56600 10 + 1.6MHZ

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	M195-4	16469	GENERATOR SIGNAL	2	A	106		3277
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR RF POWER PLUG-IN						
WEIGHT IN KG/LBS	00110	15.24CM(6IN)X35.56CM(14IN)X12.70CM(5IN)D						
READOUT METHOD(S)	00120	4.54KG(10LBS)						
FREQ RANGE	00130	PLUG-IN UNIT						
	00160	DIAL						
	26600	50 TC 200MHZ						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSC#	NOMENCLATURE	TASK No	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
M196-4		16469	GENERATOR RF POWER P I	2	A	106		3278
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR RF POWER PLUG-IN						
READOUT METHOD(S)	00110	15.24CM(6IN)X35.56CM(14IN)X12.70(5IN)D						
FREQ RANGE	00160	DIAL						
VOLTAGE OUTPUT	85600	200 TC 500MHZ						
		50V	+/-1 PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDC ID NR
	M187-4	16469	GENERATOR PF POWER P I	2	A	107		3279
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR RF POWER PLUG-IN						
WEIGHT IN KG/LBS	00110	15-24CM(61IN)X35.56CM(141IN)X12.70CM(51IN)D						
ENCLOSURE (STYLE)	00120	4.54KG(10LBS)						
READOUT METHOD(S)	00130	PLUG-IN FOR MTS 10240A SIGNAL GENERATOR						
FREQ RANGE	00160	DIAL						
	26600	500MHZ TO 1GHZ	+/-1 PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
C19-2		19482	IMPEDANCE BRIDGE HIGH FREQ	2	B	008		1562
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
IMPEDANCE BRIDGE HIGH FREQ	00100							
PWR SOURCE(S)/CONSUMPTION	00110	17.78(71IN)X22.86(91IN)X15.88(6.25IN)D						
RESISTANCE MEASUREMENT	00140	12.5V BATTERY						
	59600	0 TO 800 OHMS	+/-5 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASCC. FAMILY CODE	TIME TO NR
PG-32		24141	GENERATOR PULSE	2	A	050		1914

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	43-18CM(17IN)X38-10CM(15IN)HX8.89CM(3.5IN)D	
PWR SOURCE(SI)/CONSUMPTION	00120	13-62KG(30LBS)	
PULSE MOD, TRANS TIME	00140	50-60HZ S-PHASE 115/230VAC 110W	
VOLTAGE OUTPUT	56430	30MSEC TO 1SEC	
	85600	20MW TC 20V	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASCC. FAMILY CODE	TIME TO NR
PN-1600		09987	RESISTANCE BRIDGE	2	B	006		2000

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
RESISTANCE MEASUREMENT	00180	RESISTANCE BRIDGE	
	00160	SCALE	
	59600	0 TO 1.010 OHMS IN 5 RANGES	±0.00002CHP

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	07036	77327	GENERATOR SIGNAL P I	2	A	107		3283
PARAMETER NAME			PARAMETER CODE	PARAMETER OR AS STATED				
WEIGHT IN KG/LBS		00100	GENERATOR SIGNAL PLUG-IN					
ENCLOSURE (STYLE)		00110	17.78CM(7IN)HX43.26CM(19IN)HX15.24CM(6IN)D					
READOUT METHOD(S)		00120	6.81KG(15LBS)					
FREQ RANGE		00130	PLUG-IN FOR PRC MODEL 81C-510 MAINFRAME					
		00160	DIGITAL DIAL					
		26600	500MHZ TO 1GHZ					
				IN 1 RANGE				+/-2 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC.	THD#
							CODE	
	RCO 20006	23405	OSCILLATOR DUAL PHASE	2	A	.050		3287
PARAMETER NAME				PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
WEIGHT IN KG/LBS				00100	OSCILLATOR DUAL PHASE			
PWR SOURCE(S)/CONSUMPTION				00110	48.26CM(19IN)HX40.64CM(16IN)HX7.62CM(3IN)D			
READOUT METHOD(S)				00120	13.62KG(30LBS)			
OUTPUT SIGNALS				00140	50-400HZ S-PHASE 115VAC 70W			
PULSE RATE				00160	DIAL			
				50000	2 PHASE SINE WAVE PEF AND VARIABLE PHASE			
				56600	1 TO 99.99KHZ	+/-1 PCT		

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	NER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	SP2280	11837	IMPEDANCE MEASURING SYSTEM	2	D	022	008	3292
PARAMETER NAME				PARAMETER		ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS				IMPEDANCE MEASURING SYSTEM				
WEIGHT IN KG/LBS				28.58CM(11.25IN)X53.34CM(21IN)X48.26CM(19IN)D				
PWR SOURCE(S)/CONSUMPTION				34.28KG(75.5LBS)				
ENCLOSURE (STYLE)				50-400HZ S-PHASE LL7/230VAC/125W				
PWR SOURCE(S)/CONSUMPTION				DIAL				
ENCLOSURE (STYLE)				0 TCI2030UF		+/-1 PCT		
PWR SOURCE(S)/CONSUMPTION				0 TO 140H		+/-1 PCT		
ENCLOSURE (STYLE)				0 TO 12000 MEGCHMS		+/-0.01 PCT		

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	NER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	TF-1066A	09553	SIGNAL GENERATOR	2	A	106		1612
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR						
WEIGHT IN KG/LBS	00110	59.69CM(23.5IN)X36.83CM(14.5IN)X26.67CM(10.5IN)D						
ENCLOSURE (STYLE)	00120	24.52						
PWR SOURCE(S)/CONSUMPTION	00130	PLUG-IN						
ENCLOSURE (STYLE)	00140	40-60HZ S-PHASE 100/200VAC/90W						
P-ADJUT METHOD(S)	00160	DIAL METER						
	26600	10 TC 470MHZ	+/-2 PCT					

US ARMY GENERAL PURPOSE TWICE PARAMETERS

TYPE DESIGNATOR	WEPS MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
	TF-1247	09553	OSCILLATOR	2	A	106		1920
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	OSCILLATOR						
WEIGHT IN KG/LBS	00110	24.13CM(9.5IN)X35.56CM(14.1IN)X26.04CM(10.25IN)D						
PWP SOURCE(S)/CONSUMPTION	00120	10.44KG(23LBS)						
FREQ RANGE	00140	40-1030HZ S-PHASE 115VAC/ 20 TO 300MHZ USED WITH MARCONI TF-1245						
	26600							

US ARMY GENERAL PURPOSE TWICE PARAMETERS

TYPE DESIGNATOR	WEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
	TO-5	56289	BRIDGE CAPACITANCE	2	B	011	008	1307
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE CAPACITANCE						
WEIGHT IN KG/LBS	00110	36.20CM(14.25IN)X21.59CM(8.5IN)X12.70CM(5IN)D						
PWP SOURCE(S)/CONSUMPTION	00120	5.45KG(12.1LBS)						
REANPUT METHOD(S)	00140	60HZ S-PHASE 105/125VAC/25W						
CAPACITANCE RANGE	00160	METER						
	C9400	0 TO 2000UF						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC- FAMILY CODE	TMCE ID NR
	ZR-2A	80740	BRIDGE IMPEDANCE	2	B	011	008	1314
PARAMETER NAME				PARAMETER CODE		ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS				00100		BRIDGE IMPEDANCE		
WEIGHT IN KG/LBS				00110		27.31CM(10.75IN)X24.45CM(9.63IN)X26.07CM(10.51IN)		
PWR SOURCE(S)/CONSUMPTION				00120		6.92KG(15.25LBS)		
READOUT METHOD(S)				00140		50-1000HZ S-PHASE 115/230VAC/18W		
CAPACITANCE RANGE				00160		DIALS		
INDUCTANCE				08400		NOT LISTED		
RESISTANCE MEASUREMENT				36800		NOT LISTED		
				59600		NOT LISTED		

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC-FAMILY CODE	TMCE ID NR
	101	15933	PULSE GENERATOR	2	A	050		1883
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	PULSE GENERATOR						
WEIGHT IN KG/LBS	00110	27.94CM(11.01IN)X8.89CM(3.51IN)X21.59CM(8.51IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	3.63KG(8.0LBS)						
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC 15W						
PULSE MOD, TRANS TIME	00160	DIALS						
PULSE RATE	56430	40NSEC TO 10MSEC	IN 6 RANGES					
SYNCHRONIZATION, MODE OF	56600	10HZ TO 10MHZ PULSE REPETITION RATE	IN 8 RANGES					
VOLTAGE OUTPUT	74400	SIN WAVE TRIGGE, SINGLE OR DOUBLE PULSE						
	85600	500MV TO 10V						

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
	1013	82199	GENERATOR PULSE	2	A	050		1874
PARAMETER NAME			PARAMETER CODE	PARAMETER				
				ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS			G0100	SIGNAL GENERATOR PULSE				
PWR SOURCE(S)/CONSUMPTION			G0110	38-10CM(151IN)X20-32CM(18IN)X48-26CM(19IN)D				
READOUT METHOD(S)			G0140	50-4000HZ S-PHASE 115/230VAC 70W				
PRIMARY INPUT CONNECTOR(S)			G0160	METER, DIAL				
OUTPUT SIGNALS			G0170	LEADS				
			50000	METRODYNE PRINCIPAL USING 2 HIGH FREQ OSC				
			56600	200HZ TO 200KHZ				

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
	102A	04901	GENERATOR SIGNAL	2	A	106		1630
PARAMETER NAME			PARAMETER CODE	PARAMETER				
				ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS			G0100	GENERATOR SIGNAL				
WEIGHT IN KG/LBS			G0110	43.82CM(17.25IN)X13.34CM(5.25IN)X46.36CM(18.25IN)D				
PWR SOURCE(S)/CONSUMPTION			G0120	13.82XG(30LBS)				
READOUT METHOD(S)			G0140	50-4000HZ S-PHASE 115/230VAC/30W				
AMP MOD-INT			G0160	DIGITAL				
FREQ RANGE			01600	400 & 1000HZ				
			26600	4.3 TO 520MHZ				
				IN 5 RANGES				

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	1050	28009	WHEATSTONE BRIDGE	2	8	008		1926
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	WHEATSTONE BRIDGE						
READOUT METHOD(S)	00110	22.86CM(9IN)X15.24(6IN)X22.86CM(9IN)						
RESISTANCE MEASUREMENT	00160	METER VIA DIAL						
	59600	1MILLI OHM TO 9.999MEG OHM	+/-1 PCT					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMDE ID NR
	106 TYPE 2	80009	GENERATOR SQUARE WAVE	2	A	054	047	3340
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR SQUARE WAVE						
PWR SOURCE(S)/CONSUMPTION	00110	22.86CM(9IN)X37.47CM(14.75IN)X15.24CM(6IN)D						
READOUT METHOD(S)	00120	8.17KG(18LBS)						
FREQUENCY OUTPUT RANGE	00140	50-60HZ 5-PHASE 151/230VAC/85W						
IMPEDANCE OUTPUT	00160	METER						
OUTPUT SIGNALS	25400	10HZ TO 10MHZ						
VOLTAGE OUTPUT	35200	50 OHMS						
	50000	SQUARE WAVE POS & NEG						
	85600	.5 TO 12V						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	10669/6	09553	GENERATOR SIGNAL FM	2	A	106		1825
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL FM						
WEIGHT IN KG/LBS	00110	53.34CM(21.1IN)X38.10CM(15.1IN)X25.40CM(10.1IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	24.52KG(54LBS)						
AMP MOD-EX	00140	40-60HZ S-PHASE 115/230/90W						
AMP MOD-INT	01200	30HZ TC 15KHZ						
FREQ MOD	01600	1.5.5KHZ						
FREQ RANGE	26020	3 TO 100KHZ DEF						
IMPEDANCE OUTPUT	26600	10 TC 470MHZ FM						
VOLTAGE OUTPUT	35200	50 CHMS						
	85600	.20V TC 200MV						
			IN 5 BANDS					
			+-1 PCT					

4-1 FCT

IN 5 BANDS

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR	
	107	80009	SQUARE WAVE GENERATOR	2	A	054	047	1884	
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED						
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE							
WEIGHT IN KG/LBS	00110	17.15CM(6.75IN)X26.67CM(10.5IN)X27.94CM(11.1IN)D							
PWR SOURCE(S)/CONSUMPTION	00120	2.72KG(6LBS)							
HEADOUT METHOD(S)	00140	50-60HZ S-PHASE 105/125VAC/100W							
FREQUENCY OUTPUT RANGE	00160	CRT							
IMPEDANCE OUTPUT	25400	400KHZ TC 1MHZ	1 BAND						
OUTPUT SIGNALS	35200	50 CHMS							
VOLTAGE OUTPUT	50000	SQUARE WAVE							
	85600	.1 TC .5V							

1 BAND

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	NER'S MODEL NR	FSC M	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	1080	28009	WHEATSTONE BRIDGE HIGH PRECISION	2	R	008		1379

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
READOUT METHOD(S)	00100	WHEATSTONE PRINGE	
RESISTANCE MEASUREMENT	00160	DIAL	
	59600	0 TO 100 MEGOHM	+/- .02 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	NER'S MODEL NR	FSC M	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	109	80009	GENERATOR PULSE	2	A	054	047	1085

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	12.70CM(5IN)X20.32CM(8IN)X30.48CM(12IN)ID	
PWR SOURCE(S)/CONSUMPTION	00120	3.63K(9LBS)	
IMPEDANCE OUTPUT	00140	50-800HZ 5-PHASE 115VAC/60W	
OUTPUT SIGNALS	35200	50 OHMS	
PULSE WIDTH	50000	PULSE	
PULSE RATE	56010	300NSEC	
VOLTAGE OUTPUT	56600	.5A5EC TO 100NSEC	
	85600	9-50V	

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCN	NOMENCLATURE	TASK NP	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	1105A	28490	GENERATOR PULSE	2	A	050		2562
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	13.34CM(5.25IN)X5.38CM(2.12IN)X17.53CM(6.9IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	1.82KG(4LBS)						
READOUT METHOD(S)	00140	50-400HZ S-PHASE 45VAC/1W						
PRIMARY INPUT CONNECTOR(S)	00160	DIAL						
TEMPERATURE OUTPUT	00170	RNC						
OUTPUT SIGNALS	35200	50 CHMS						
PULSE RATE	50000	TRIGGER BIAS SOURCE CONNECTS TO PULSE GEN SUPPLY						
	56600	0 TO 100KHZ						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC #	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	116 VSC	23338	GENERATOR PHASE LOCK FUNCTION	2	A	047		1887
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR FUNCTION						
WEIGHT IN KG/LBS	00110	27.94CM(11.0IN)X13.97CM(5.5IN)X30.48CM(12IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	4.54KG(10LBS)						
READOUT METHOD(S)	00140	60HZ S-PHASE 115VAC						
FREQUENCY OUTPUT RANGE	00160	DIAL						
	25400	0 TO 200KHZ						
			+/-1 PCT					

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TWIDE ID NR
1205BF		82199	MODULAR MICROWAVE SIGNAL SOURCE	2	A	107		1713
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	MODULAR MICROWAVE SIGNAL SOURCE						
WEIGHT IN KG/LBS	00110	42.55CM(16.75IN)HX13.34CM(5.25IN)HX48.26CM(19IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	18-61KG(41LBS)						
	00140	400HZ S-PHASE 110VAC/240W						
	26600	800MHZ TO 2.4GHZ	IN 1 RANGE					
			+/-5 PCT					

US ARMY GENERAL PURPOSE TMC PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMC ID NR
	1205F	82199	SIGNAL GENERATOR MICROWAVE	2	A	107		1827
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR MICROWAVE						
PWR SOURCE(S)/CONSUMPTION	00110	42-55CM(16.75IN)HX13.34CM(5.25IN)HX43.18CM(17IN)						
BEADOUT METHOD(S)	00120	18-61KG(41LBS)						
FREQ RANGE	00140	50-400MHZ S-PHASE 115/230VAC/195W						
VOLTAGE OUTPUT	00160	CPT & GAGE						
	26600	95MHZ TO 2.4GHZ						
	85600	50W TC 120W	+/-3 PCT					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSC- FAMILY CODE	TMDE ID NR
1212A		24655	DETECTOR NULL	2	R	008		1714

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DETECTOR, NULL	00100		
WEIGHT IN KG/LBS	00110	14.61CM(5.75IN)X15.88CM(6.25IN)X27.31CM(10.75IN)D	
PMR SOURCE(S)/CONSUMPTION	00120	2.16KG(4.75LBS)	
READOUT METHOD(S)	00140	REQUIRES UNIT PMR SUPPLY	
	00160	METER	

US ARMY GENERAL PURPOSE THREE PARAMETERS

TYPE DESIGNATOR	MER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSC- FAMILY CODE	TMDE ID NR
12199		24655	OSCILLATOR UNIT	2	A	106		1829

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
OSCILLATOR UNIT	00100		
WEIGHT IN KG/LBS	00110	20.32CM(8IN)X24.13CM(9.5IN)X17.78CM(7IN)D	
READOUT METHOD(S)	00120	3.41KG(7.5LBS)	
RFQ RANGE	00160	DIAL	
	26600	50 TC 250MHZ	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	1217C	24655	GENERATOR PULSE	2	A	050		1830

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/LBS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	14-61CM/15.75IN/11X15.88CM(6.25IN/11X50-80CM(20IN/D	
READOUT METHOD(S)	00120	7.04KG(15.5LBS)	
PULSE RATE	00140	50-60HZ S-PHASE 115VAC 90W	
VOLTAGE OUTPUT	00160	DIAL	
	56600	0 TC 2-4MHZ W/100NSEC TC 1SEC IN 7 RANGES	
	65600	0 TO 40V	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	132A	13489	GENERATOR PULSE	2	A	050		1809

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/LBS	00100	SIGNAL GENERATOR PULSE	
WEIGHT IN KG/LBS	00110	48.26CM/19IN/11X27.94CM(11IN/11X17.78CM(17IN/D	
PWR SOURCE(S)/CONSUMPTION	00120	9.99KG(22LBS)	
READOUT METHOD(S)	00140	50-60HZ S-PHASE 105/125VAC	
PULSE RATE	00160	DIAL	
	56600	5 TO 3.5MHZ	
	74400	± AND - POLARITY, W/ADJUSTABLE PULSE WIDTH AND RATE	

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFG'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	1410	65092	ANALYZER FREQUENCY RESPONSE	2	A	047		1657
PARAMETER								
PARAMETER NAME	PARAMETER CODE		PARAMETER					
	00100		SIGNAL GENERATOR FUNCTION					
	00110		48-26CM(19IN)X17.78CM(7IN)HX45.72CM(18IN)D					
	00120		17-25KG(38LBS)					
WEIGHT IN KG/LBS	00140		50-400HZ S-PHASE 115-230VAC 120W					
PWR SOURCE(S)/CONSUMPTION	00160		DIGITAL					
READOUT METHOD(S)	00170		CABLES VIA PANAMA JACKS					
PRIMARY INPUT CONNECTOR(S)	25400		-001 TC 10KHZ					
FREQUENCY OUTPUT RANGE	50000		SINE+SQUARE,SUPPRESSED CARRIER					
OUTPUT SIGNALS			+/- .5 PCT					
PARAMETER NAME			PARAMETER CODE		ACCURACY (PCT) OR AS STATED			

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
1531AB		24655	TACHOMETER STROBOSCOPE	2	E	065		1717
PARAMETER								
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	TACHOMETER STROBOSCOPIC						
WEIGHT IN KG/LBS	00110	26-99CM(10.63IN)X15-56CM(6.13IN)X16-83CM(6.63IN)D						
READOUT METHOD(S)	00120	3-29KG(7-55LBS)						
FLASH CHARACTERISTICS	00160	DIAL						
SYNCHRONIZATION INPUT	24400	110 TO 25,000 PULSES PER MINUTE	IN 3 RANGES					
	74000	EXTERNAL TRIGGER INPUT CAPABILITY						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC #	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	1530-A	24655	STROBSCOPE	2	E	065		1718
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	STROBSCOPE						
WEIGHT IN KG/LBS	00110	27CM110-63INMX16.84CM16.63INMX33.02CM131M10						
READOUT METHOD(S)	00120	3-5.1KG(12.5LBS)						
FLASH CHARACTERISTICS	00160	DIAL						
	24400	110 TO 150,000 FLASHES PER MINUTE IN 4 RANGES	+/-1 PCT					
	74000	INPUT TRIGGERING CAPABILITY						

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	1604A	24655	COMPARATOR IMPEDANCE	2	B	008		1474

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS	00100	COMPARATOR IMPEDANCE	
WEIGHT IN KG/LBS	00110	36.20CM114.25INMX25.40CM110INMX30.48CM112IN10	
ENCLOSURE (STYLE)	00120	10.22KG22.50LBS	
READOUT METHOD(S)	00130	60HZ ±15VAC	
RESISTANCE MEASUREMENT	00160	DIAL	
	59600	2 TO 20MEG OHMS	

US ARMY GENERAL PURPOSE THREE PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
	1610-82	24655	CAPACITANCE MEASURING ASSEMBLY	2	8	011	008	1384
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	CAPACITANCE MEASURING ASSY						
WEIGHT IN KG/LBS	00110	109.2CM(43.1IN)X50.8CM(20.1IN)X57.15CM(22.5IN)D						
	00120	31.72KG(180LBS)						
	00160	DIAL						
CAPACITANCE RANGE	00400	200PF TO 1.50UF	+/-1 PCT					
INTERNAL SIGNAL SOURCE	25410	20HZ TO 500KHZ						

US ARMY GENERAL PURPOSE THREE PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
1611A		24655	BRIDGE CAPACITANCE	2	8	008		1385
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	RPTDGE,CAPACITANCE						
WEIGHT IN KG/LBS	00110	36.83CM(14.5IN)X25.40CM(10IN)X40.64CM(16IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	13.85KG(30.5LBS)						
READOUT METHOD(S)	00140	60HZ S-PHASE 115/230VAC/15W						
CAPACITANCE RANGE	00160	DIAL VIA SWITCHES						
	00400	0 TO 1100UF	+/-1 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	HER'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC- FAMILY CODE	TIME ID NR
	16154M	24655	CAPACITANCE BRIDGE	2	8	011	008	2570
PARAMETER NAME								
		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
		00100	CAPACITANCE BRIDGE					
		00110	33-02CM1131NWX22.86CM191NWX48.26CM1191N10					
		00120	18-16KGI40LBS1					
		00160	DIGITAL READOUT VIA CIALS					
		08400	1PF TO 1UF					
				+/- .01 PCT				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	HER'S MODEL NP	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC- FAMILY CODE	TIME ID NR
	1620A	24655	CAPACITANCE MEASUREMENT SYSTEM	2	8	011	008	2571
PARAMETER NAME								
		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
		00100	CAPACITANCE MEASUREMENT SYSTEM					
		00110	50-8CM1201NWX26.67CM110.51NWX48.26CM1191N10					
		00120	26-79KGI59LBS1					
		00140	50-400HZ S-PHASE 115/230VAC/22W					
		00160	DIGITAL DIAL					
		08400	1PF TO 1UF					
		25410	AUDIO CSC					
				+/- .01 PCT				

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
1632		24655	BRIDGE INDUCTANCE	2	B	024	008	2572
PARAMETER NAME								
		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
		00100	BRIDGE INDUCTANCE					
		00110	40-64CM(16IN)X27.94CM(11IN)X50.80CM(20IN)D					
		00120	18-16KG(40LBS)					
		00160	DIAL					
		25420	100HZ TO 100KHZ					
		36800	100PH TO 1111H					
			EXTERNAL SIGNAL SOURCE					
			INDUCTANCE					
				+/- 1 PCT				

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
16508		24655	BRIDGE IMPEDANCE	2	B	008		1475
PARAMETER NAME								
		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
		00100	BRIDGE IMPEDANCE					
		00110	25-40CM(10IN)X15.24CM(6IN)X30.48CM(12IN)D					
		00120	4.54KG(10LBS)					
		00130	RACK MOUNT					
		00140	4 SIZE-D BATTERY CELLS					
		00160	METER VIA DIAL					
		08400	1PF TO 1100UF					
		25410	1KHZ INTERNAL OSC					
		25420	EXTERNAL FREQ CAPABILITY					
		36800	1UH TO 1100H					
		59600	1MILLICM TO 11MEGCM					
			RESISTANCE MEASUREMENT					
				+/- 1 PCT				
				+/- 1 PCT				

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	185A	30669	GENERATOR SQUARE WAVE AND ELEC SWITCH	2	A	054	047	1896
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR SQUARE WAVE AND ELECTRONIC SWITCH						
WEIGHT IN KG/LBS	00110	18.73CM(7.38IN)X29.21CM(11.5IN)X33.02CM(13IN)D						
	00120	7.72KG(17LBS)						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	18500B	99899	GENERATOR SIGNAL	2	A	107		2581
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
	00110	50.80CM(20IN)X50.80CM(20IN)X24.13CM(9.5IN)D						
	00120	38.59KG(85LBS)						
READOUT METHOD(S)	00160	DIGITAL METER						
FREQ RANGE	26600	920MHZ TO 1.25GHZ						
PULSE MOD (PM)-I/V	56400	PULSE MOD						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	1920A	28480	GENERATOR PULSE	2	A	050		1838

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	00100	SIGNAL GENERATOR PULSE	
ENCLOSURE (STYLE)	00110	20-32CM(8IN)WX10-16CM(4IN)HX18-42CM(7.25IN)D	
READOUT METHOD(S)	00120	1-82 KG(4 LBS)	
PRIMARY INPUT CONNECTOR(S)	00130	PLUG-IN	
PULSE MOD, TRANS TIME	00140	DIAL	
PULSE RATE	00170	CABLES	
VOLTAGE OUTPUT	56430	0 TO 100SEC	
	56600	0 TO 25MHZ	
	85600	0 TO 5V	

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	202A	28480	GENERATOR SIGNAL	2	A	047		3345

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS	00110	32-34CM(12.75IN)WX38-10CM(15IN)HX52-71CM(20.75IN)D	
ENCLOSURE (STYLE)	00120	19-07KG(42LBS)	
PWR SOURCE(S)/CONSUMPTION	00130	CABINET, FR BACK MOUNT	
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115VAC 150W	
PRIMARY INPUT CONNECTOR(S)	00160	DIAL	
DISTORTION	00170	CABLES VIA BANANA JACKS	
FREQUENCY OUTPUT RANGE	19200	DISTORTION LEVEL LT	
OUTPUT SIGNALS	25400	.008 TC 1200HZ	
VOLTAGE OUTPUT	50000	SINE SQUARE TRIANGLE	
	85600	30V P/P ACROSS 4K OHM LOAD	

US ARMY GENERAL PURPOSE TMDF PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDF ID NR
	202E	28480	GENERATOR SIGNAL	2	A	106		1635
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	GENERATOR SIGNAL						
PHR SOURCE(S)/CONSUMPTION	00110	42-55CM(16-75IN)MX26-04CM(10-25IN)MX46-67CM(18-36IN)D						
READOUT METHOD(S)	00120	20-43KG(45LBS)						
AMP MOD-EX	00140	50-400HZ S-PHASE 115/230VAC/100W						
AMP MOD-INT	00160	DIAL METER						
FREQ MOD	01200	20HZ TC 20KHZ						
FREQ RANGE	01600	50HZ TC 60KHZ						
IMPEDANCE OUTPUT	26020	0 TO 240KHZ DEV						
VOLTAGE OUTPUT	35200	54 TC 216MHZ	IN 2 RANGES					
	85600	25 & 50 OHMS	+/-5 PCT					
		100UV TO 200MV						

US ARMY GENERAL PURPOSE TMDF PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDF ID NR
	211A	28490	GENERATOR SIGNAL	2	A	106		1638
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	26-67CM(10-51IN)X26-13CM(9-51IN)X49-53CM(19-51IN)D						
	00120	28-6KG(63LBS)						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 105/125VAC/150W						
FREQ RANGE	00160	DIAL						
VOLTAGE OUTPUT	26600	98 TC 140MHZ						
	85600	100UV TO 200MW VCR&LS LOCALIZER RECEIVERS						

US ARMY GENERAL PURPOSE TWICE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC #	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	2133	28480	GENERATOR PULSE	2	A	050		1850
			PARAMETER	ACCURACY (PCT) OR AS STATED				
			PARAMETER CODE					
			00100	SIGNAL GENERATOR PULSE				
			00110	13-02CM(5.125IN)HX12.70CM(5IN)HX3.81CM(1.51IN)D				
			00120	.91KG(2LBS)				
			00140	50-1000HZ S-PHASE E 115/230VAC 1W				
			56600	0 TO 1MHZ				
			PARAMETER	ACCURACY (PCT) OR AS STATED				
			CODE					
			00100	DIMENSIONS IN CM/INS				
			00110	WEIGHT IN KG/LBS				
			00140	PWR SOURCE(S)/CONSUMPTION				
			56600	PULSE RATE				

US ARMY GENERAL PURPOSE TWICE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	2144	28480	GENERATOR PULSE	2	A	050		3348
			PARAMETER	ACCURACY (PCT) OR AS STATED				
			PARAMETER CODE					
			00100	SIGNAL GENERATOR PULSE				
			00110	42-55CMH16-75INHX17.62CMH16.938INHX46.67CM(18.375IN)				
			00120	15.89KG(35LBS)				
			00140	50-4000HZ S-PHASE 115VAC 325W				
			00160	RECTARY SWITCHES				
			00170	TEST LEADS				
			56430	50NSEC TC10MSEC				
			56600	10 TC 1MHZ				
			74400	VARIABLE WIDTH&LITUDE PULSE, + AND - PULSE				
			85600	200MV TO 100V				
				IN 5 RANGES				
				IN 5 RANGES				
				IN - PULSE				
				IN 9 RANGES				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WEIGHT MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
216A		28480	GENERATOR PULSE	2	A	050		1851
PARAMETER NAME		PARAMETER CODE	PARAMETER					ACCURACY (PCT) OR AS STATED
WEIGHT IN KG/LBS		00100	SIGNAL GENERATOR PULSE					
PWR SOURCE(S)/CONSUMPTION		00110	42.550CM(16.75IN)W46.67CM(18.375IN)H13.97CM(5.5IN)D					
PULS RATE		00120	11.35KG(25LBS)					
VOLTAGE OUTPUT		00140	50-60HZ 5-PHASE 115-230VAC/120V					
		00160	DIAL					
		56600	1 TC 100PHZ W/PPS 5NSEC TO 100NSEC IN 3 RANGES					
		85600	400MV TO 10V IN 3 RANGES					

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US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	WEIGHT MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
219R		28480	GENERATOR DIGITAL DELAY	2	A	050		1852
PARAMETER NAME		PARAMETER CODE	PARAMETER					ACCURACY (PCT) OR AS STATED
DIMENSIONS IN CM/INS		00100	GENERATOR DIGITAL DELAY					
WEIGHT IN KG/LBS		00110	48.26CM(19.0IN)W45.25CM(21.75IN)H13.56CM(14IN)D					
PWR SOURCE(S)/CONSUMPTION		00120	33.60KG(74LBS)					
PULS RATE		00140	50-60HZ 5-PHASE 115/230VAC 55W					
PULSE MOD, TRANS TIME		00160	DIALS					
SYNCHRONIZATION, MODE OF		56430	100USEC TC 10NSEC					
		74400	INT CR EXT TRIGGERING					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	2221	28480	GENERATOR PULSE	2	A	050		1853
PARAMETER NAME			PARAMETER CODE	ACCURACY (PCT) CR AS STATED				
DIMENSIONS IN CM/INS			00100	SIGNAL GENERATOR PULSE				
WEIGHT IN KG/LBS			00110	13.97CM(15.51IN)X34.29CM(13.51IN)X42.55CM(16.75IN)D				
PRR SOURCE(S)/CONSUMPTION			00120	8.17KG(18LBS)				
READOUT METHOD(S)			00140	50-60HZ S-PHASE 115/230VAC 80W				
PRIMARY INPUT CONNECTOR(S)			00160	DIAL				
IMPEDANCE, OUTPUT			00170	CABLES				
PULSE MOD, TRANS TIME			35200	50 CHMS				
PULSE RATE			56430	20NSEC TO 5PSEC				
SYNCHRONIZATION, MODE OF			56600	10 TO 10MHZ				
VOLTAGE, OUTPUT			74400	EXT TRIGGERING + CR - PCLLARITY, PULSE WIDTH VARIABLE				
			85600	10V				
				IN 6 RANGES		+/-2 PCT		
				IN 6 RANGES		+/-3 PCT		

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	WEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	2313	11837	WHEATSTONE BRIDGE	2	B	008		1333
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	WHEATSTONE BRIDGE						
PWR SOURCE(S)/CONSUMPTION	00110	38.35CM(15.11IN)X50.80CM(20IN)X49.53CM(19.51IN)D						
READOUT METHOD(S)	00120	32.23KG(71LBS)						
RESISTANCE MEASUREMENT	00140	60HZ S-PHASE 115VAC/1W						
	00160	METERS						
	59600	10CHM TO 12+000 MEGOHMS						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSC#	NOMENCLATURE	TASK	GROUP	FAMILY	ASSOC.	THDE
				NR				
	250-A	04901	METER RX	2	0	022	008	1334
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	METER RX						
WEIGHT IN KG/LBS	00110	50-80CM(20IN)X30-48CM(12IN)X25-40CM(10IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	18-16KG(40LBS)						
PEADOUT METHOD(S)	00140	50-60HZ S-PHASE 105-125VAC/60W						
CAPACITANCE RANGE	00160	METER VIA DIAL						
	08400	0 TO 100PF						
	59600	15 TO 100KOHMS	+/-1 PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFP'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THDE ID NR
	2700	09553	BRIDGE UNIVERSAL IMPEDANCE	2	8	008		1487
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE UNIVERSAL IMPEDANCE						
WEIGHT IN KG/LBS	00110	17.78CM(7IN)X22.86CM(9IN)X20.32CM(8IN)D						
PWP SOURCE(S)/CONSUMPTION	00120	3.63KG(8LBS)						
READOUT METHOD(S)	00140	60HZ S-PHASE 110VAC						
RESISTANCE MEASUREMENT	00160	METER VIA DIAL						
	59600	0 TO 1MEGOMH	+/-0.01 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFG'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	290-A-M30	11837	IMPEDANCE BRIDGE	2	B	008		3350
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	IMPEDANCE BRIDGE						
WEIGHT IN KG/LBS	00110	13.34CM(5.25IN)X20.22CM(8IN)X48.26CM(19IN)D						
	00120	8.4KG(18.5LBS)						
	00160	DIAL						
CAPACITANCE RANGE	00400	0-TC 1200UF	+/-2 PCT					
INDUCTANCE	36800	0 TC 1200H	+/-1 PCT					
RESISTANCE MEASUREMENT	59600	0 TC 1.2MEG OHMS	+/-5 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFG'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR		ACCURACY (PCT) OR AS STATED	
										PARAMETER CODE	PARAMETER
	2901	80009	GENERATOR TIME MARK	2	A	050		1840			

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSEC. FAMILY CODE	TMCE ID NR
215A		11837	BRIDGE IMPEDANCE	2	8	008		3592
PARAMETER NAME								
		PARAMETER CODE	PARAMETER				ACCURACY (PCT) OR AS STATED	
		00100	BRIDGE IMPEDANCE					
		00110	20-32CM(81N)X17.78CM(71N)X25-40CM(10IN)D					
		00120	4-09KG(9LBS)					
		00140	9V DC BATTERY					
		00160	DIAL					
		59600	0 TO 12KOHMS					
							±/-5	PCT

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSEC. FAMILY CODE	TMCE ID NR
3310A		28480	GENERATOR FUNCTION	2	4	047		1842
PARAMETER NAME								
		PARAMETER CODE	PARAMETER				ACCURACY (PCT) OR AS STATED	
		00100	SIGNAL GENERATOR FUNCTION					
		00110	19-59CM(7.75IN)X11.43CM(4.5IN)X20.32CM(8IN)D					
		00120	2.72KG(6LBS)					
		00140	50-400HZ S-PHASE 115/230VAC 20W					
		00160	DIAL					
		50000	SINE, SQUARE, PULSE, RAMP WAVEFORMS					
		85600	0 TO 46DB					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	WEP'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMDE ID NR
	3351	89536	CALIBRATOR VOLT METER	2	8	121		3456
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	CALIBRATOR VOLT METER						
WEIGHT IN KG/LBS	00110	48.26CM(19.0IN)X46.99CM(18.5IN)X17.78CM(7IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	27.24KG(60LBS)						
	00140	50-60HZ S-PHASE 115/230VAC						
	00160	METER						
VOLTAGE, DC	84400	-100UV TO 10KVEC	+/-3 FCT					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC#	NOMENCLATURE	TASK	GROUP	FAMILY	ASSCC.	TMDE
				NR	LTR			
	34500	92110	GENERATOR PULSE	2	A	050		1844
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
	00100	SIGNAL GENERATOR PULSE						
	00110	24.21CM(11.5IN)X40.64CM(16IN)X50.80CM(20IN)D						
	00120	37.68KG(83LBS)						
WEIGHT IN KG/LBS	00140	50-60HZ S-PHASE 105/125VAC 500W						
PWR SOURCE(S)/CONSUMPTION	50000	VARIABLE WIDTH AND FREQ PULSES						
OUTPUT SIGNALS								

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSC #	NOMENCLATURE	TASK	GROUP	FAMILY	ASSOC-	TIME
				NR	LTR	CODE	FAMILY CODE	
	5271	31922	BRIDGE RESISTANCE	2	A	008		1405
PARAMETER NAME				PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS				00100	BRIDGE RESISTANCE			
WEIGHT IN KG/LBS				00110	48-26CM(19IN)X43-15CM(17IN)X43-18CM(17IN)D			
PWR SOURCE(S)/CONSUMPTION				00120	21-79KG(48LBS)			
READOUT METHOD(S)				00140	50-60HZ 5-PHASE 120VAC/6W			
RESISTANCE MEASUREMENT				00160	METER			
				59600	1 TO 100 MEGOHM			
					+/- .005PCT			

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NA	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	4285	31922	BRIDGE RESISTANCE	2	A	008		1408
PARAMETER NAME				PARAMETER				
PARAMETER CODE				PARAMETER OR AS STATED				
DIMENSIONS IN CM/INS				00100 BRIDGE RESISTANCE				
WEIGHT IN KG/LBS				00110 22-86CM(19IN)X18-80CM(7-4IN)X40-64CM(16IN)D				
PWR SOURCE(S)/CONSUMPTION				00120 9-08KG(20LBS)				
READOUT METHOD(S)				00140 BATTERY 1.5V				
RESISTANCE MEASUREMENT				00160 METER				
				59600 .001OHM TO 26.60MH				

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	470A-1000	94668	GENERATOR SIGNAL	2	A	107		1642
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
PAR SOURCE(S)/CONSUMPTION	00110	17.15CM(6.75IN)HX46.99CM(18.5IN)HX25.40CM(10IN)D						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115VAC						
FREQ MOD-INT	00160	DIAL METER						
FREQ RANGE	26600	50-WAVE MDO	+/-1 PCT					
VOLTAGE-OUTPUT	85600	470PHZ TC 1GHZ						
		50PW TC 55W						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	470A-1800	94668	GENERATOR SIGNAL	2	A	107		1861
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	25.40CM(10IN)HX9.53CM(3.75IN)HX46.99CM(18.5IN)D						
PAR SOURCE(S)/CONSUMPTION	00120	16.34KG(36LBS)						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115VAC						
AMP MDO-INT	00160	DIAL METER						
FREQ RANGE	01600	100HZ TO 100KHZ						
VOLTAGE-OUTPUT	26600	1GHZ TC 1.6GHZ						
	85600	70MW TC 35W	+/-1 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASCC. FAMILY CODE	TIME ID NR
	4735	31022	BRIDGE RESISTANCE	2	A	008		1408

ACCURACY (PCT)
OR AS STATED

PARAMETER CODE

PARAMETER

00100 BRIDGE RESISTANCE
00110 22.23CM(8.75IN)X16.19CM(6.38IN)X48.26CM(19.1IN)
00120 2.0AKS(20LBS)
00140 1VDC
00150 DIALS
50000 0 TO 1.111MEGOM

+/-3 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASCC. FAMILY CODE	TIME ID NR
	5044	10597	GENERATOR WAVEFORM	2	A	047		1862

ACCURACY (PCT)
OR AS STATED

PARAMETER CODE

PARAMETER

00100 SIGNAL GENERATOR FUNCTION
00110 43.18CM(17IN)X8.89CM(3.5IN)X34.29CM(13.5IN)
00120 5.90KG(13LBS)
00140 50-400HZ S-PHASE 115-230VAC 124
00160 DIAL
00170 CABLES
25400 100NANCHZ TO 1MHZ
50000 SINE,SQUARE,TRIANGLE,PULSE

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MEM'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
	50708	80138	GENERATOR PULSE	2	A	050		2576
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
PWR SOURCE(S)/CONSUMPTION	00110	48-26CM(19.1IN)X33-22CM(13.1IN)HX22.56CM(9IN)D						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 117VAC 15W						
PRIMARY INPUT CONNECTOR(S)	00160	DIAL						
ATTENUATION-OUTPUT	00170	TEST LEADS						
IMPEDANCE-OUTPUT	03600	101DR IN 10 ⁴ STEPS						
PULSE WIDTH	33200	50 OHMS						
PULSE MOD, TRANS TIME	56010	.1 TO 100/USEC	IN 1 RANGE					
PULSE RATE	56430	0 TO 35EC	IN					
VOLTAGE-OUTPUT	56600	10 TO 120VHZ W/PPS 50 TC 50KHZ PULSE RATE IN 5 RANGES						
	85600	0 TC 3V						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC FAMILY CODE	TMDE ID NR
	51058/51108	28480	SYNTHESIZER FRFQ	2	A	106		1846
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SYNTHESIZED FREQUENCY						
WEIGHT IN KG/LBS	00110	42-55CM(16.75IN)WX39-85CM(15.89IN)HX41.59CM(16.38IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	44-01KGL(141LRS)						
READOUT METHOD(S)	00140	50-400PFZ S-PHASE 115/230VAC/70W						
AMP MOD-EX	00160	PUSH BUTTON						
FREQ RANGE	01200	1000HZ						
IMPEDANCE-OUTPUT	26600	100KHZ TC 500MHZ						
VOLTAGE-OUTPUT	35200	50 OHMS						
	85600	.1MW TC .22MW						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	5305	31922	WHEATSTONE BRIDGE	2	8	008		1414

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
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WEIGHT IN KG/LBS
PWR SOURCE(S)/CONSUMPTION
READOUT METHOD(S)
RESISTANCE MEASUREMENT

00100 WHEATSTONE BRIDGE
00110 21.59CM(8.5IN)X15.75CM(6.2IN)X24.13CM(9.5IN)D
00120 4.54KG(10LBS)
00140 3 TYPE D BATTERIES
00160 METER AND DIAL
59600 0 TO 100KIL/CM

+/- .15 PCT

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	543A	31922	BRIDGE RESISTANCE	2	8	008		1949

PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED
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WEIGHT IN KG/LBS
PWR SOURCE(S)/CONSUMPTION
READOUT METHOD(S)
RESISTANCE MEASUREMENT

00100 BRIDGE RESISTANCE
00110 20.32CM(8IN)X17.78CM(7IN)X15.24CM(6IN)D
00120 1.82KG(4LBS)
00140 3VDC
00160 METER
59600 10MM TC 1MEGOM

+/-1 PCT

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MER'S MODEL NR	FSC M	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	608C-R	28480	GENERATOR SIGNAL VHF	2	A	106		3366
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL VHF						
WEIGHT IN KG/LBS	00110	48.26CM(19IN)HX45.72CM(18IN)HX23.02CM(13IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	28.18KG(62LBS)						
AMP MOD-EX	00140	50-400-HZ S-PHASE						
AMP MOD-INT	01200	20HZ TC 20KHZ						
FREQ RANGE	01600	400 E 1000HZ						
IMPEDANCE OUTPUT	26600	10 TC 400MHZ	IN 5 RANGES					
VOLTAGE OUTPUT	35200	50 OHMS	+/-5 PCT					
	85600	100UV TO 1V	+/-1 PCT					

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFP'S MODEL NR	FSC#	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR	ACCURACY (PCT) OR AS STATED	
									PARAMETER CODE	PARAMETER
608C3 (MCD)	28480	GENERATOR SIGNAL VHF	2	A	106	3367			00100	GENERATOR SIGNAL VHF
									00110	41.59CM(16.38IN)X53.34CM(21IN)X33.66CM(13.25IN)D
									00120	28.15KG(62LBS)
									00140	50-400HZ S-PHASE
									26600	10 TC 400MHZ
	85600	100UV TO 1V								

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
608E		28430	GENERATOR SIGNAL VHF	2	A	106		1863
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL VHF						
WEIGHT IN KG/LBS	00110	33-66CM(13-25IN)WX41.59CM(16.38IN)FX53.34CM(21IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	28-60KG(63LBS)						
READOUT METHOD(S)	00140	50-60HZ S-PHASE 115/230VAC/220W						
AMP MOD-EX	00160	DIALS, METER						
AMP MOD-INT	01200	20HZ TC 20KHZ						
ATTENUATION, OUTPUT	01600	400 & 1000HZ						
FREQ RANGE	02000	ADJUSTABLE FROM .1UV TO 1V ATTENUATOR						
IMPEDANCE, OUTPUT	35200	1 TO 480MHZ	+/-5 PCT					
VOLTAGE, OUTPUT	85600	50 CHPS						
		100UV TO 1V	+/-12 PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	6254-5	13222	GENERATOR SIGNAL	2	A	050		1848
PARAMETER NAME				PARAMETER		ACCURACY (PCT) OR AS STATED		
		00100	SIGNAL GENERATOR PULSE					
		00110	21-59CM(8.51IN)X22.86CM(9.1IN)X37.15CM(14.625IN)D					
		00140	60HZ S-PHASE 115VAC 200W					
		00160	DIALS					
		00170	BANANA JACKS					
		50000	TRANSIENT SINGLE OR SELECTED RATE					
		56600	.5 TC 40PPS					
		85600	10 TC 250V					
			PWR SOURCE(S)/CONSUMPTION					
			READOUT METHOD(S)					
			PRIMARY INPUT CONNECTOR(S)					
			OUTPUT SIGNALS					
			PULSE RATE					
			VOLTAGE, OUTPUT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	7040	79409	TESTER IMPEDANCE GROUNDCLCP	2	0	022	008	1420
PARAMETER NAME								
		PARAMETER CODE	PARAMETER					
DIMENSIONS IN CM/INS		00100	TESTER IMPEDANCE GROUNDCLCP					
WEIGHT IN KG/LBS		00110	9.53CM(3.75IN)X8.57CM(3.38IN)X19.05CM(7.5IN)ID					
		00120	45KG(111LB)					
		00140	50-60HZ S-PHASE 115VAC					
RESISTANCE MEASUREMENT		59600	0 TO 25 OHMS					
								ACCURACY (PCT) OR AS STATED
								+/-1 PCT

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMCE ID NR
	7160	24655	BRIDGE CAPACITANCE	2	P	011	008	1367
PARAMETER NAME								
		PARAMETER CODE	PARAMETER					
DIMENSIONS IN CM/INS		00100	BRIDGE CAPACITANCE					
WEIGHT IN KG/LBS		00110	55.25CM(21.75IN)X36.20CM(14.25IN)X29.58(11.25IN)ID					
CAPACITANCE RANGE		00120	18.59KG(40.5LBS)					
		08400	100PF TO 1100PF					
								ACCURACY (PCT) OR AS STATED
								+/-1 PCT

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK No	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
740R		28480	DC STANDARD DIFFERENTIAL VOLT METER	2	8	121		1965
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	DC STANDARD DIFFERENTIAL VOLT METER						
WEIGHT IN KG/LBS	00110	42.55CM(16.75IN)X17.46CM(6.88IN)X46.36CM(18.25IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	21.47KG(47.3LBS)						
VOLTAGE-DC	00140	50-400HZ S-PHASE 115/230VAC/125W						
	84400	0 TO 1000VDC	+/-2 PCT					
			IN 4 RANGES					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	7413	28480	VOLTMETER DIFFERENTIAL AC DC	2	8	121		1966
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	DIFFERENTIAL VOLT METER						
WEIGHT IN KG/LBS	00110	42.55CM(16.75IN)X17.78CM(7IN)X46.36CM(18.25IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	20.88KG(46LBS)						
READOUT METHOD(S)	00140	50-1000HZ S-PHASE 115/230VAC/125W						
FREQ RANGE	00160	DIGITAL, METER						
VOLTAGE-AC	26650	20HZ TC 100KHZ						
VOLTAGE-DC	84000	0 TO 1000VAC	IN 4 RANGES +/-1 PCT					
	84400	0 TO 1000VDC	IN 4 RANGES +/--.001PCT					

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	THOE ID NR
	750	04901	BRIDGE CAPACITANCE	2	9	011	008	1369
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED					
DIMENSIONS IN CM/INS	00100	BRIDGE CAPACITANCE						
WEIGHT IN KG/LBS	00110	49.53CM(19.51IN)X28.58CM(11.25IN)X32.39CM(12.75IN)						
READOUT METHOD(S)	00120	15.89KG(35LBS)						
CAPACITANCE RANGE	00160	METER VIA DIAL						
	08400	LOPF TC 10,000UF						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	THOE ID NR
	750-S138	33013	GENERATOR SIGNAL	2	A	106		1872
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	47.55CM(16.75IN)X17.78CM(7IN)X46.48CM(18.3IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	12-28V(127LBS)						
READOUT METHOD(S)	00140	50-400HZ 5-PHASE 115/230VAC/75W						
FREQ RANGE	00160	DIGITAL						
	26600	9.5 TC 520MHZ						

US ARMY GENERAL PURPOSE TWICE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	80058	28480	GENERATOR PULSE	2	A	050		1849
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	SIGNAL GENERATOR PULSE						
WEIGHT IN KG/LBS	00110	42.55CM(16.75IN)X13.97CM(5.5IN)X33.66CM(13.25IN)D						
PER SOURCE(S)/CONSUMPTION	00120	7-26KG(16LBS)						
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC 84W						
IMPEDANCE-OUTPUT	00160	DIAL						
OUTPUT SIGNALS	35200	50 CHWS						
PULSE WIDTH	50000	TRIPLE OUTPUT PULSE,						
PULSE RATE	56010	25NSEC TO 3SEC	IN 5 RANGES					
SYNCHRONIZATION, MODE OF	56430	10NSEC TO 25FC						
	56600	3HZ TO 20MHZ	IN 5 RANGES					
	74400	SYNC AND ASYNCHRONOUS GATING						

US ARMY GENERAL PURPOSE TWICE PARAMETERS

TYPE DESIG/ATTR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	THIDE TO NR
	803	89536	VOLTMETER ELFC PRECISION DIFFERENTIAL	2	B	121		2559
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	VOLTMETER ELECTRONIC PRECISION DIFFERENTIAL						
PWR SOURCE(S)/CONSUMPTION	00110	24-38CM(9.75IN)X40.64CM(16IN)X33.02CM(13IN)D						
READOUT METHOD(S)	00120	11-35KG(25LBS)						
VOLTAGE-DC	00140	50-440HZ S-PHASE 115/230VAC/85W						
	00160	METER						
	84400	0 TO 500VDC	+/-0.02 PCT					

5/20

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S ACCEL NO	FSCM	NOMENCLATURE	TASK NO	GROUP LTR	FAMILY CODE	ASSCC-FAMILY CODE	TIME ID NR
	8033R	89536	VOLTMETER DIFFERENTIAL	2	R	121		1967
PARAMETER NAME		PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED				
DIMENSIONS IN CM/INS		00100	VOLTMETER DIFFERENTIAL					
WEIGHT IN KG/LBS		00110	48.26CM(19.4IN)X17.78CM(7.0IN)X39.37CM(15.50IN)D					
PWR SOURCE(S)/CONSUMPTION		00120	11.35KG(25LBS)					
HEADOUT METHOD(S)		00140	400HZ S-PHASE 120VAC/75W					
FREQ RANGE		00160	DIAL METER					
VOLTAGE*AC		26650	5HZ TO 10KHZ					
VOLTAGE*DC		84000	0 TO 500VAC	IN 8 RANGES S				
		84400	0 TO 500VDC	IN 4 RANGES				
				+/-2 PCT				
				+/-0.5 PCT				

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TIME ID NR
	8033G	89536	VOLTMETER ELFC	2	R	121		1969
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER ELECTRONIC						
WEIGHT IN KG/LBS	00110	34.14CM(13.44IN)X24.33CM(9.62IN)X43.82CM(17.25IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	9.99KG(22LBS)						
HEADOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC/85W						
FREQ RANGE	00160	METER						
VOLTAGE*AC	26650	0 TO 100KHZ	+/-0.02 PCT					
VOLTAGE*DC	84000	0 TO 500VAC	+/-1 PCT					
	84400	0 TO 500VDC						
		IN 4 RANGES						
		IN 4 RANGES						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMCE ID NR
E640A		28480	GENERATOR SIGNAL	2	A	106		1591
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
WEIGHT IN KG/LBS	00100	GENERATOR SIGNAL						
PWP SOURCE(S)/CONSUMPTION	00110	47.63CM(118.75IN)X14.05CM(5.53IN)X42.55CM(16.95IN)D						
READOUT METHOD(S)	00120	20-43KG(45LBS)						
FREQ RANGE	00140	48-440HZ S-PHASE 110/230VAC/175W						
VOLTAGE OUTPUT	00160	DIAL METER						
	26600	500KHZ TC 512MHZ						
	85600	130V TC 2V						
		IN 10 RANGES						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TMCE ID NR
E640B		28480	GENERATOR SIGNAL AM-FM	2	A	106		2071
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	47.63CM(118.75IN)X14.05CM(5.53IN)X42.55CM(16.75IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	20-43KG(45LBS)						
READOUT METHOD(S)	00140	48-440HZ S-PHASE 110/230VAC/175W						
FREQ RANGE	00160	DIGITAL DISPLAY						
VOLTAGE OUTPUT	26600	500 TC 512MHZ						
	85600	130V TC 2V -145 TO 190R						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSC. FAMILY CODE	TMCE ID NR
	66428-001	28480	GENERATOR SIGNAL	2	4	106		1593
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	GENERATOR SIGNAL						
WEIGHT IN KG/LBS	00110	42-55CM(16.75IN)X13.34(5.25IN)X47.63CM(18.75IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	20-43KG(45LBS)						
READOUT METHOD(S)	00140	48-440HZ S-PHASE 100/240VAC/175W						
FREQ RANGE	00160	DIGITAL METER						
VOLTAGE OUTPUT	26600	500 TC 512MHZ	+/-5 PCT					
	85600	130V TO 2V -145ER TO						

US ARMY GENERAL PURPOSE TMCE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSC	NOMENCLATURE	TASK		GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TRCE ID NR
				NR	CODE				
	66544	28480	GENERATOR SIGNAL VHF	2		4	106		1594
PARAMETER NAME				PARAMETER CODE	PARAMETER		ACCURACY (PCT) OR AS STATED		
DIMENSIONS IN CM/INS				00100	GENERATOR SIGNAL VHF				
WEIGHT IN KG/LBS				00110	26-59CM(10.47IN)X15.48CM(6.11IN)X27.94CM(11.1IN)D				
PWR SOURCE(S)/CONSUMPTION				00120	6-47KG(14.25LBS)				
READOUT METHOD(S)				00140	48-440HZ S-PHASE 110/240VAC/20W				
FREQ RANGE				00160	DIAL METER				
VOLTAGE OUTPUT				26600	10 TC 520MHZ				
				85600	700UV TO 70MV				
							+/-2 PCT		
							IN 6 RANGES		

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSCG. FAMILY CODE	TMDE ID NR
	E660H-001	28480	SYNTHESIZED SIGNAL GENERATOR	2	A	107		2073
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OP AS STATED					
DIMENSIONS IN CM/INS	00100	SYNTHESIZED SIGNAL GENERATOR						
WEIGHT IN KG/LBS	00110	48.26CM(19.4IN)X43.02CM(16.94IN)X54.93CM(21.63IN)D						
ENCLOSURE (STYLE)	00120	23.15KG(51LBS)						
PWR SOURCE(S)/CONSUMPTION	00130	FRAME FOR RF PLUG-INS						
READOUT METHOD(S)	00140	48-66HZ S-PHASE 115/ 230VAC/200W						
FREQ RANGE	00160	DIGIT						
	26600	10KHZ TO 1.3CH7 W/RE PLUG-NS						
	50000	CM.FREC STEPPING,CUT OUT LEVELING,DIGITAL-SWEEP,FMEPULSE						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK		FAMILY CODE	ASSCG.	
				NR	LTR		THOSE ID NR	FAMILY CODE
	86602A	29480	RF SECTION	2	A	107		2090
PARAMETER NAME				PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED		
WEIGHT IN KG/LBS				00100	RF SECTION			
ENCLOSURE (STYLE)				00120	4.09KG(9LBS)			
READOUT METHOD(S)				00130	PLUG-IN USED W/HP-86608 MAIN FRAME			
FREQ RANGE				00160	METER			
				26600	1GHZ TC 1.299GHZ			

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	REF'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	266319	28480	AUXILIARY SECTION	2	A	107		2091
PARAMETER NAME		PARAMETER CODE	PARAMETER					ACCURACY (PCT) OR AS STATED
		00100	AUXILIARY SECTION					
		00130	PLUG-IN USED W/HP-8660B PROVIDES FOR EXT AMEPLUSE MOD					
		01290	EXT AM					
AMP MOD-EX		26000	AM & PULSE MOD					
FREQ MOD-EX		34400	50 OHMS FOR PULSE-MOD, 600 OHMS FOR AM					
IMPEDANCE, INPLT								

US ARMY GENERAL PURPOSE TIME PARAMETERS

TYPE DESIGNATOR	REF'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TIME ID NR
	266324	28480	MODULATION SECTION	2	A	107		2092
PARAMETER NAME		PARAMETER CODE	PARAMETER					ACCURACY (PCT) OR AS STATED
		00100	MODULATION SECTION					
		00130	PLUG-IN USED W/HP-8660B FOR INT & EXT AM OR FM-MOD					
ENCLOSURE (STYLE)		00160	METER					
READOUT METHOD(S)		26020	0 TO 1MHZ FM					
FREQ MOD		26400	400 & 1300HZ 0-100 PCT MOD					

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	TME ID NR	ASSOC- FAMILY CODE	ACCURACY (PCT) CP AS STATED
8708A		28480	GENERATOR SIGNAL P I SYNCHRONIZER	2	A	106	2081		
PARAMETER NAME									
PARAMETER CODE									
PARAMETER									
GENERATOR SIGNAL PLUG-IN SYNCHRONIZER									
00100									
81-28CM(132IN)W*6-67CM(18-38IN)H*42-55CM(16-75IN)D									
12-26KG(27LBS)									
PLUG-IN									
00130									
50-400HZ S-PHASE 115/230VAC/48W									
00140									
PWR SOURCE(S)/CONSUMPTION									
00160									
READOUT METHOD(S)									
26600									
RFQ RANGE									
50KHZ TO 430MHZ									
1 TO 3V									
VOLTAGE OUTPUT									
85600									
+/-1 PCT									
+/-1 PCT									

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	TME ID NR	ASSOC- FAMILY CODE	2081	106	ACCURACY (PCT) CP AS STATED
8708A		28480	GENERATOR SIGNAL P I SYNCHRONIZER	2	A						
PARAMETER NAME											
PARAMETER CODE											
PARAMETER											
GENERATOR SIGNAL PLUG-IN SYNCHRONIZER											
00100											
81-28CM(132IN)W*6-67CM(18-38IN)H*42-55CM(16-75IN)D											
12-26KG(27LBS)											
PLUG-IN											
00130											
50-400HZ S-PHASE 115/230VAC/48W											
00140											
PWR SOURCE(S)/CONSUMPTION											
00160											
METER											
26600											
50KHZ TC 430MHZ											
1 TO 3V											
85600											
VOLTAGE OUTPUT											
IN 6 PANGES											
+/-1 PCT											
+/-1 PCT											

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	THDE ID NR	ASSC. FAMILY CODE
	e87-484N	89536	VOLTMETER DIFFERENTIAL	2	B	121	2560	
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL						
WEIGHT IN KG/LBS	00110	21.59CM(8.5IN)WX38.10CM(15IN)HX17.78CM(7IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	6.81KG(15LBS)						
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC/5W						
VOLTAGE*AC	00160	DIGITAL						
VOLTAGE*DC	84000	0 TO 1000VAC						
	84400	0 TO 1000VDC						

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	THDE ID NR	ASSC. FAMILY CODE
	e87-484N	89536	VOLTMETER DIFFERENTIAL	2	B	121	2560	
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) CR AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL						
WEIGHT IN KG/LBS	00110	21.59CM(8.5IN)WX38.10CM(15IN)HX17.78CM(7IN)D						
PWR SOURCE(S)/CONSUMPTION	00120	6.81KG(15LBS)						
READOUT METHOD(S)	00140	50-400HZ S-PHASE 115/230VAC/5W						
VOLTAGE*AC	00160	DIGITAL						
VOLTAGE*DC	84000	0 TO 1000VAC						
	84400	0 TO 1000VDC						

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MEP'S MODEL NR	FSCM	NOMENCLATURE	TASK NR	GROUP LTR	FAMILY CODE	ASSOC. FAMILY CODE	TMDE ID NR
	P87A	89536	VOLTMETER DIFFERENTIAL	2	B	121		1971
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL						
WEIGHT IN KG/LBS	00110	21-59CM(8.51IN)WV37-47CM(14.75IN)HX17.78CM(7IN)D						
POWER SOURCE(S)/CONSUMPTION	00120	5-90KG(113LBS)						
READOUT METHOD(S)	00140	50-400-HZ 5-PHASE 115/230VAC/7W						
VOLTAGE, AC	00160	METER, DIGITAL						
VOLTAGE, DC	84400	0 TO 1100VAC 0 TO 1100VDC	+/- .05 PCT					
			IN 4 RANGES IN 4 RANGES					

US ARMY GENERAL PURPOSE TMDE PARAMETERS

TYPE DESIGNATOR	MFR'S MODEL NR	FSCM	NOMENCLATURE	TASK	GROUP	FAMILY	ASSOC.	
				NR	LTR		CODE	TMDE ID NR
	891A	89536	VOLTMETER-DIFFERENTIAL DC	2	B	121		1972
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OR AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER DC DIFFERENTIAL						
WEIGHT IN KG/LBS	00110	24-77CM(9.75IN)WV17.78CM(7IN)HX33.98CM(13.38IN)D						
	00120	5-45KG(12LBS)						
READOUT METHOD(S)	00140	50-500HZ 5-PHASE 115/230VAC/4W						
VOLTAGE, DC	00160	METER						
	84400	0 TO 1100VDC	+/-3 PCT					

US ARMY GENERAL PURPOSE TUBE PARAMETERS

TYPE DESIGNATOR	WER'S MODEL NP	FSCM	NOVENCULATURE	TASK NP	GROUP LTR	FAMILY CODE	ASSCC. FAMILY CODE	TIME ID NR
	8531	89536	VOLTMETER DIFFERENTIAL	2	8	121		1973
PARAMETER NAME	PARAMETER CODE	PARAMETER	ACCURACY (PCT) OF AS STATED					
DIMENSIONS IN CM/INS	00100	VOLTMETER DIFFERENTIAL						
WEIGHT IN KG/LBS	00110	21.59CM(8.5IN)X17.78CM(7IN)X26.04CM(10.25IN)D						
PWP SOURCE(S)/CONSUMPTION	00120	5.45KG(12LBS)						
READOUT METHOD(S)	00140	50-500HZ S-PHASE 115/230VAC/4W	W/BATTERY CAPABILITY					
PRIMARY INPUT CONNECTOR(S)	00160	DIGITAL METER						
VOLTAGE, AC	00170	READING POSTS	IN 7 RANGES					
	84000	0 TO 1100VAC	IN 7 RANGES					
	84400	0 TO 1100VDC						